

*The*



# **CHEMIST AND DRUGGIST**

For Retailer, Wholesaler and Manufacturer

A P R I L 11 1959

the  
essence  
of  
eye care



## **Optrex**

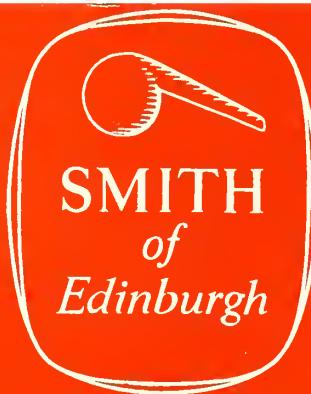
EYE LOTION

EYE COMPRESSES

OPTONE EYE DROPS



**STOCK WELL, DISPLAY WELL -  
YOU'LL SELL WELL**



## ATROPINE

Large-scale production enables us to offer competitively, Atropine Methonitrate and Atropine Sulphate

## OLEORESINS

Oleoresin of Capsicum and Oleoresin of Ginger for all purposes. Material prepared to customer's requirements.

## HYOSCINE

Alkaloid, Hydrobromide and Methylbromide available from stock in large or small quantities.

## CITRATES

Immediate delivery of Sodium Citrate and Potassium Citrate for pharmaceutical and industrial purposes.

## CHLOROFORM

Chloroform B.P. and Chloroform Technical. Competitive prices for all quantities, single deliveries or contract.

# 'Ads' infinitum . . . to help you sell 'SEA-LEGS'

TRADE MARK

Trust the public to know what's good! They've tried 'SEA-LEGS' and now they *know* that no other travel sickness preparation has all these advantages:—

- \* All-day protection from a single dose.
- \* No dry mouth or blurred vision.
- \* Safe and effective for children (from 1 year).
- \* Convenient doses—no dividing of tablets.
- \* Tasteless.
- \* Novel and attractive pack.
- \* Does not contain a scheduled poison.

Now—by word-of-mouth recommendation . . . by frequent advertisements in the country's most powerful publications . . . by the power of public praise for 'SEA-LEGS'—you get the season's surest seller!

## By public acclaim . . . by public demand

'SEA-LEGS' is prepared by The British Drug Houses Limited whose reputation for the manufacture of ethical preparations stands high. *You know it must be good because it is a BDH product.*

Now the public know it, too. The demand for 'SEA-LEGS' is going to be B-I-G. 'SEA-LEGS' is a sure-fire selling winner!

## 'Ads' that ring with conviction . . . to ring up convincing sales—for you!

Millions will learn to ask for  
'Sea-Legs'—the millions who read:

SUNDAY EXPRESS	T.V. TIMES
NEWS OF THE WORLD	JOHN BULL
SUNDAY PICTORIAL	WOMAN'S OWN
THE PEOPLE	WOMAN
RADIO TIMES	ETC., ETC.

**'Sea-Legs' for travel sickness**

**'Miraculous!...Great!...Wonderful!...say delighted travellers.'**

Travellers by land, sea and air write to tell us of their joy at last—the perfect travel sickness preventative. Here are extracts from many of them.

**On LAND**

9 year old boy knows 'Sea-Legs' are 'Miraculous'.

**by SEA**

The sea me, I feel ... Wish A

**by AIR**

Dreaded coach car tablets, helped r. Thank y

**'Sea-Legs' all-day tablets. A**

**BDH THE LAND**

**'Sea-Legs' for travel sickness**

**'Marvellous!...Great!...Perfect!...say delighted travellers.'**

Travellers by land, sea and air write to tell us of their joy at last—the perfect travel sickness preventative. Here are extracts from just a few of many entirely spontaneous and unsolicited letters:—

**On LAND—marvellous**

How marvellous 'Sea-Legs' are! Neither myself nor my two children could travel even short distances without being ill. Just got back from holiday by car and, for first time, everything was wonderful. Mrs. E. Curtis (Manchester 10)

**by AIR, land and sea—wonderful...perfect**

Dreaded journey both ways by train, coach and plane...had no faith in any tablets. But 'Sea-Legs' kept me fresh. Two trips round coast water quite choppy, hand... thanks to 'Sea-Legs' enjoyed a perfect holiday. Mrs. H. Wain (Westcliff-on-Sea, Essex)

**all credit to 'Sea-Legs'**

The Bay of Biscay was very rough most passengers were ill; but my wife and I suffered neither seasickness, headache nor any discomfort... All credit to 'Sea-Legs'. A. Hull (Poole, Dorset)

**'Sea-Legs'**

'Sea-Legs' are safe for children; give all-day protection, do not cause dry mouth. From all Chemists. In handy plastic dispenser, 2/6 (16 tablets).

**THE BRITISH DRUG HOUSES LTD LONDON N.1**

## Stock 'SEA-LEGS' and sell!

The proven travel sickness preventative the public trust

In plastic cases containing 16 tablets. Pharmacists 1/8: Retail 2/6. No purchase tax



THE BRITISH DRUG HOUSES LTD · LONDON · N.1

# POTASSIUM BOROHYDRIDE ‘Rhodia’ Brand

Manufactured by  
SOCIETE DES USINES CHIMIQUES  
RHONE-POULENC  
PARIS

REGULAR SUPPLIES AVAILABLE AT COMPETITIVE PRICES  
FROM

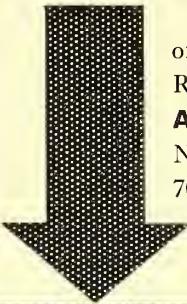
United Kingdom Distributors  
**R. W. GREEFF & Co. Ltd.**  
GARRARD HOUSE  
31/45 GRESHAM STREET, LONDON E.C.2

# Strong Spring campaign for Ronson Shaver

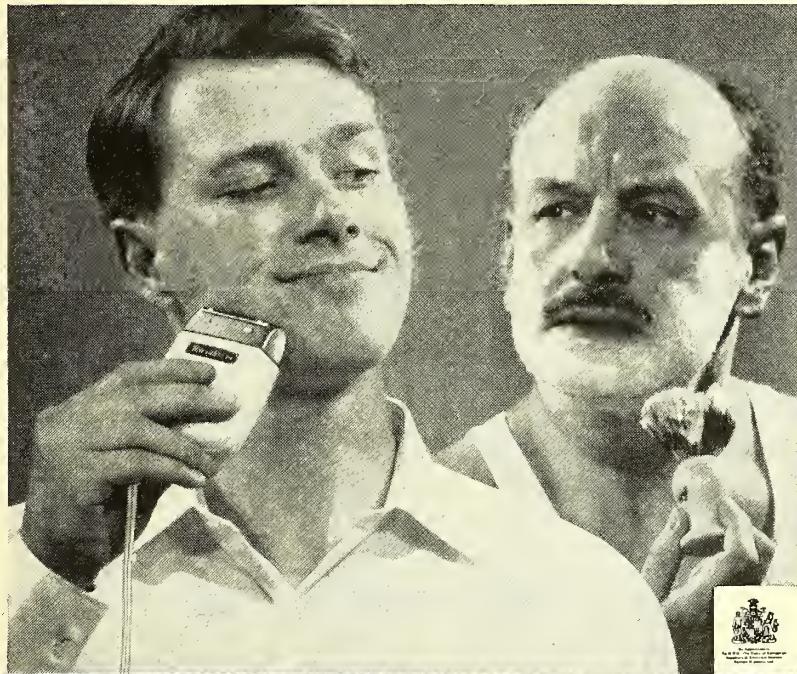
**Get your shaver sales up to date** Tough, lively advertisements will be selling hard for Ronson. Ready to send up your shaver sales. Ronson Shavers are now lined up for a big advertising spurt in May and June. Illustrated is one

of the advertisements that will tell the Ronson story.

**A total of 46,008,642 appearances** in leading National Dailies which will be seen by nearly 70% of all men in the country.



## Why don't you get up to date with a Ronson?



If you don't know the difference a Ronson Shaver can make to your life, find out quickly. Ask any man who owns one—or better still, try the Ronson yourself. You can do so at home—free.

### Wet shaving is out of date

With a Ronson you can shave anywhere, at any time. Simply switch on... switch off. It's so easy, so comfortable. No preparation. No water. No damp towel. No cleaning up. Mornings are easier, brighter with a Ronson. You feel fresh, clean, smart. A man of the world a man of TODAY.

straggly hairs. You look good—  
you feel good.

### Prove it yourself — without cost or obligation

Most Ronson dealers will arrange a 14 days home trial free and without obligation. The Standard Ronson Shaver costs £6 19s. 6d. Or, with Super Trim, £8 17s. 6d. Deferred terms are readily available.

### The world's finest Shaver

The Ronson Shaver—most advanced in the world—gives you a really close shave in superb comfort. What's more, the Ronson with Super Trim grooms you too. Trims your sideboards and moustache. Clears away all



**RONSON ELECTRIC SHAVER**  
makes wet shaving a thing of the past



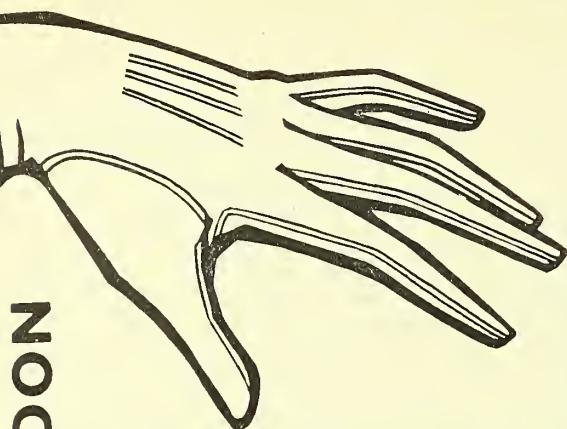
By Appointment  
To H.R.H. The Duke of Edinburgh  
Suppliers of Electrical Shavers  
Ronson Products Ltd.

# RONSON

Make this Ronson advertising work for you...  
**DISPLAY... STOCK and SELL**

world's greatest shavers

RONSON PRODUCTS LIMITED LEATHERHEAD · SURREY · LEATHERHEAD 4444



OLYMPIA ★ LONDON

MAY 11th to 15th 1959



*Top-Selling Rodenticides*

## RODINE

Rodine Phosphorus, Rodine Red Squill,  
Rodine Warfarin (Ready-to-use or Concentrate),  
and Special Rodine Mouse Warfarin.  
THOMAS HARLEY LTD., RODINE WORKS, PERTH, SCOTLAND

BURROUGH'S  
ABSOLUTE ALCOHOL

JAMES BURROUGH LTD. 1 CALE DISTILLERY LONDON S.E.11

## Now coughs abound

**SUGGEST BESORBON** There's nothing like pure safe Besorbon to clear up obstinate colds and catarrh.

**NO TOBACCO** Besorbon is a purely medicinal snuff. It is packed in handy hygienic tins. Each contains the full instructions.

**FREE COUNTER UNIT** Stock Besorbon by the dozen and obtain the attractive impulse selling counter unit free. Display it prominently. You'll gain more sales—more business.

**It's big selling for**

## BESORBON

REGD. TRADE MARK

MEDICINAL SNUFF

Kemsales Ltd. • Eastcheap • London, E.C.3

ESTABLISHED 1793

## ATKINSON & BARKERS INFANTS' PRESERVATIVE

The Infants' Medicine  
of 150 years' standing

For teething and digestive troubles

ROBERT BARKER & SON LTD  
13 ALISTAIR STREET, MANCHESTER, 1

DALES PHARMACEUTICALS LTD. STEETON 3222

Immediate quotations for Home Trade and Export

# TABLETS PILLS

BARROWS LANE, STEETON, NR. KEIGHLEY, YORKS.

# DALES DALES DALES DALES

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IF YOU ARE LOOKING FOR A TABLET MANUFACTURER TO HANDLE YOUR PRODUCT  
BE IT LARGE OR SMALL, IN THOUSANDS OR MILLIONS, WHY NOT

CONTACT ONE OF THE FOREMOST MAKERS WHO HAVE TAKEN PRIDE IN

MANUFACTURING TABLETS & PILLS FOR MANY YEARS

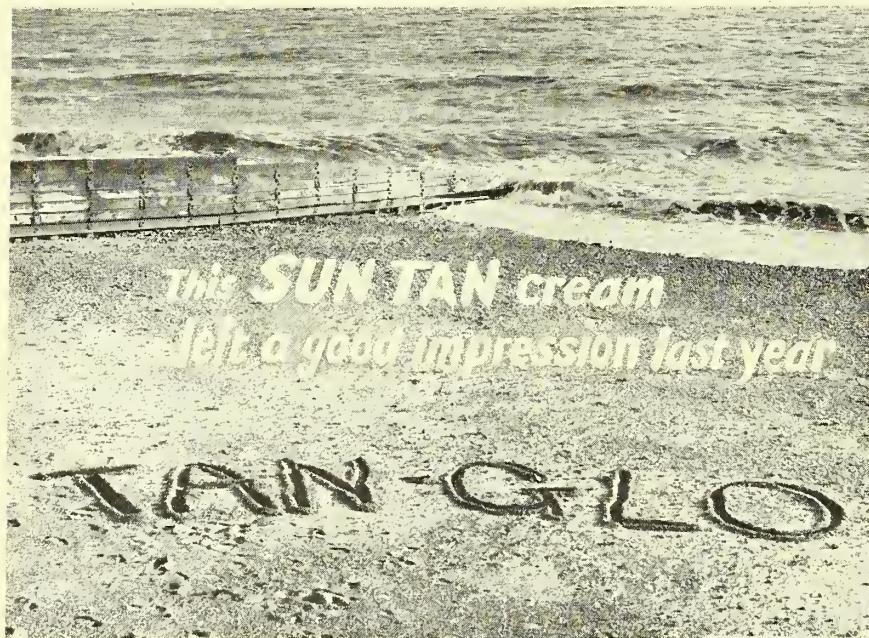
**RICHARD DANIEL & SON, LTD. DERBY**

Write us at Mansfield Road or ring Derby 40671 (Ten lines)

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Excellent formula. Modern pack and Display material

**CARTONED TUBES PACKED  
IN SHOWOUTERS OF 1 DOZEN**

Write to us for large sample tube and generous  
Trade Terms

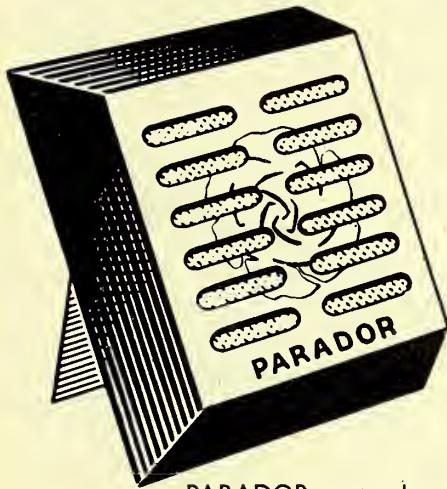
*stock up early this year*

ARTHUR H. COX & CO. LTD  
BRIGHTON · ENGLAND

IN THE SERVICE OF PHARMACY FOR 120 YEARS

# PARADOR

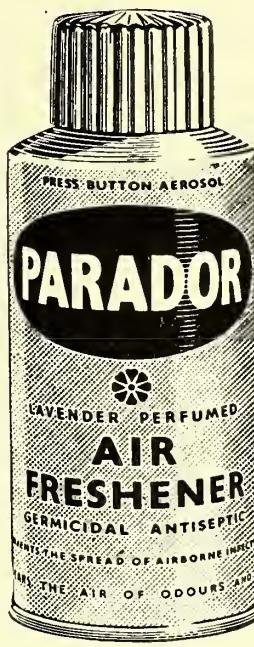
## AIR FRESHENER



PARADOR — stands or hangs. 3 perfumes, rose, lavender, hyacinth. Packed in mixed display outers of 1 and 2 dozen.

Standard trade price—10/- dozen.

Retail Price **1/3**  
EACH



### PARADOR AEROSOL

Lavender perfumed.  
Antiseptic, Germicidal.  
The perfect Air Freshener.  
Standard Trade Price—  
37/1d dozen.

**TERRIFIC VALUE**  
**the only one**

at **4/3**

Hard hitting advertising campaign now under way in  
**ALL POPULAR WOMEN'S MAGAZINES**  
**with NATION-WIDE CIRCULATION**

**WOMAN**

**WOMAN'S OWN**

**WOMAN'S ILLUSTRATED**

**WOMAN'S DAY**

**WOMAN'S WEEKLY**

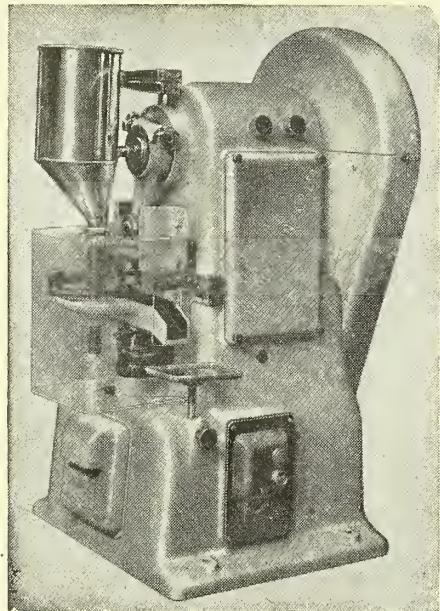
**WOMAN & HOME**

**MY HOME**

**WIFE & HOME**

**WOMAN'S REALM**

# You will sell PARADOR



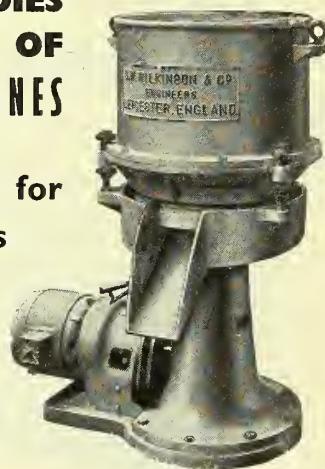
New LB.I. Type Bench Tabletting Machine

**S. W. WILKINSON & CO., LTD.**  
WESTERN ROAD, LEICESTER

Telephone: Leicester 21283.

Telegrams: Wilkinson, Leicester 21283

Engineers and Specialists in Pharmaceutical Machinery for over 50 years



## ROTARY and SINGLE PUNCH TABLETTING MACHINES

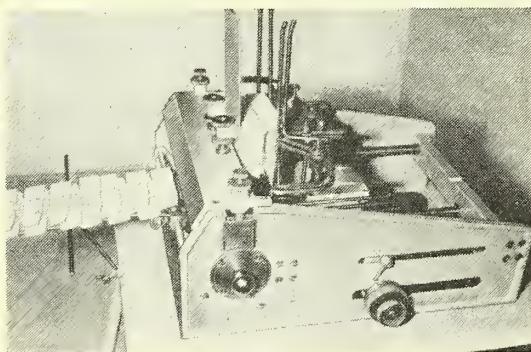
## OINTMENT MIXING and GRINDING MILLS

## PUNCHES AND DIES FOR ALL TYPES OF TABLETTING MACHINES

Presses and Moulds for  
Gelatine Capsules

### “MINI-MEM RAPID”

Stamping Machine for Folding Cartons



Production up to 500 stampings a minute

Control or Batch Number and Text printed in one operation on to all types of collapsible cartons of widely varying shapes and sizes. Machine easily adjustable, simple to operate, occupies little space and is light in weight. Send us your particular problems and we shall be pleased to advise you without any obligation.

For full details, please write to:—

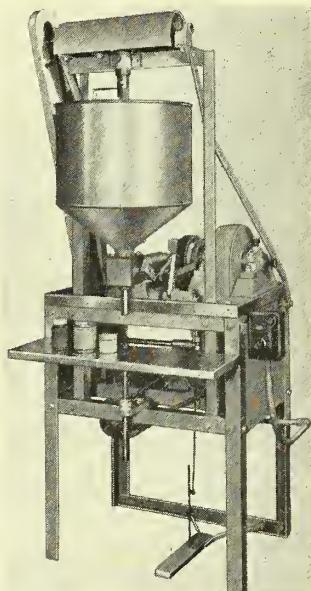
**ROBERT S. MAYNARD**

LANGHAM COURT, FIELDEN PARK, MANCHESTER, 20

Telephone: DIDsbury 7330

## ‘CENTRAC’ FILLERS

Hand - operated,  
semi - automatic  
and automatic ;  
for filling pastes,  
creams, semi-  
fluids, etc.



### No. 5 FILLING MACHINE

Semi - automatic  
Filler for pots,  
jars, tins, col-  
lapsible tubes,  
polythene bags  
and containers,  
shampoo sachets,  
etc.

**The BANISTER STREET WORKS Ltd.**

18a De Beauvoir Rd., London, N.1 Tel. CLissold 0828

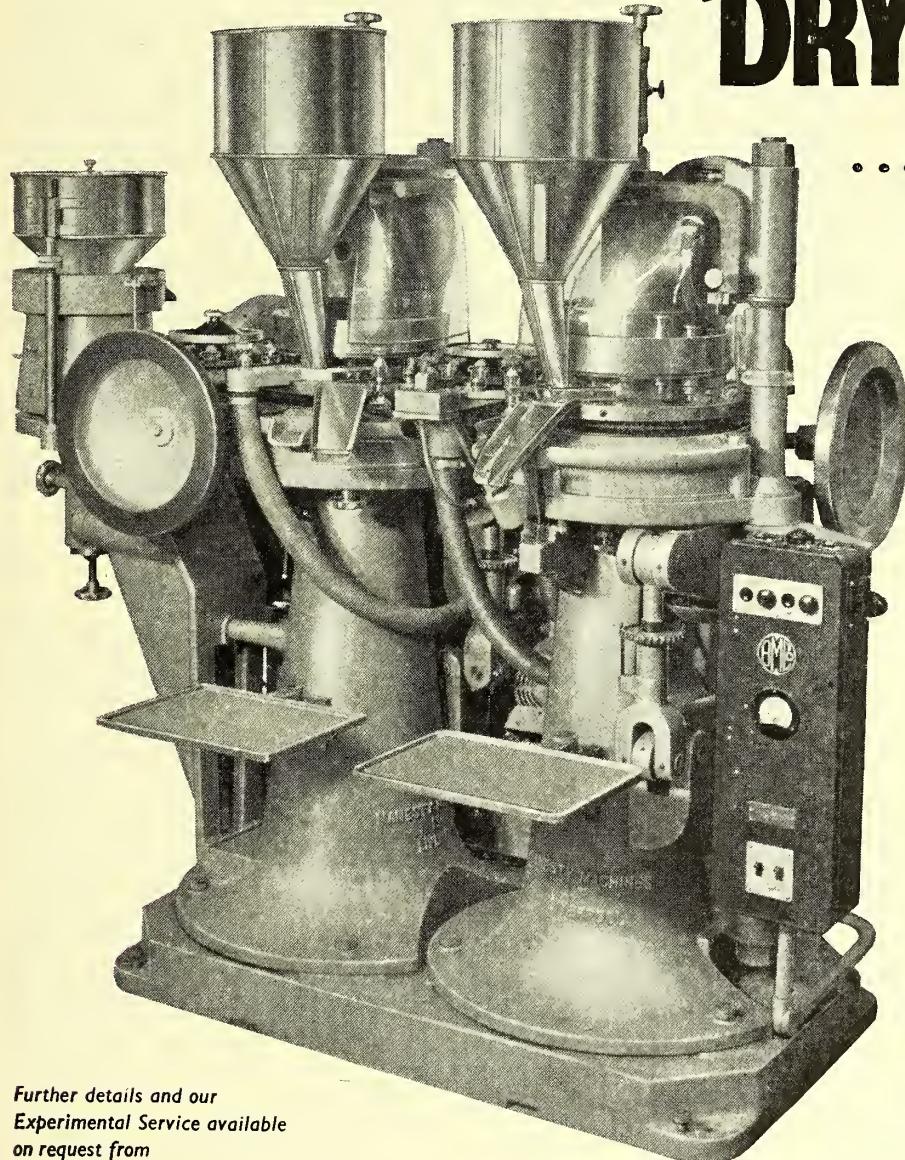
# DRYCOATING!

THE

# MANESTY

## 'DRYCOTA'

...the only  
**FULLY**  
automatic  
machine  
for  
making  
cores and  
coating



Further details and our  
Experimental Service available  
on request from

**MANESTY** MACHINES LTD.

S P E K E • L I V E R P O O L 2 4

Telephone: HUNTS CROSS 1972    Telegrams: MANESTY LIVERPOOL 24

\*

A SUCCESS ON  
EVERY CONTINENT

\*

DOZENS OF ENTIRELY  
NEW PRODUCTS  
BEING MADE DAILY

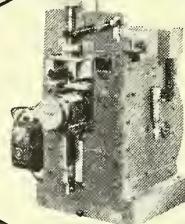
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Output of up to 53,000  
coated tablets per hour  
or 106,000 uncoated  
tablets per hour.

*It must be*  
**NEWMAN** for  
*labelling & packaging*  
*equipment*

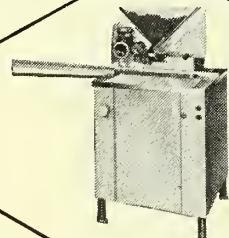
**LABELLING**  
**MACHINES,**  
 Bench Model,  
 Semi Automatic

Gum and apply labels  
 to small and medium  
 bottles, packs etc.  
 Quick change-over.  
 Strip Gummimg Model 23A  
 Fully Gummimg Model 3C



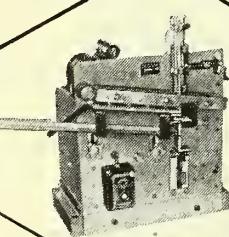
**VIAL & AMPOULE**  
**PRINTING MACHINE**

High quality  
 printing. Double  
 impression  
 offset system  
 using quick drying  
 or ceramic inks.  
 Variable speed control.  
 Quick change-over  
 Model 1F



**LABELLING MACHINE**  
 Bench Model, Automatic

For ampoules, vials,  
 crayons, tubes,  
 torch cells etc.  
 Label coding  
 available.  
 High quality  
 labelling due to  
 sustained pressure on label  
 after application.  
 Model 2B.



See our display at the

**PACKAGING CENTRE**  
 50 Poland Street, London, W.I

Open weekdays from 10-6

**LABEL GUMMING MACHINE**

Self feeds labels from simple  
 magazine. Motorized. Touch-bar  
 control. High speed operation.  
 Model 1D.



**D. TRAPOW & CO. LTD.**  
 ENGINEERS  
 113-115A REGENTS PARK ROAD, LONDON, N.W.1  
 Telephone: PRImrose 6688

**CITRATES?**

*Morsons will  
 know!*

When you have specialised for  
 over a century, you may fairly  
 claim to know your subject.  
 And that is precisely our posi-  
 tion today. For more than a  
 hundred years, Morsons have  
 been making chemicals for  
 industry and the pharmacist;  
 and this long experience has  
 resulted in the technical suprem-  
 acy which is self-evident in every  
 Morson product.

**POTASSIUM CITRATE**

**B.P.**

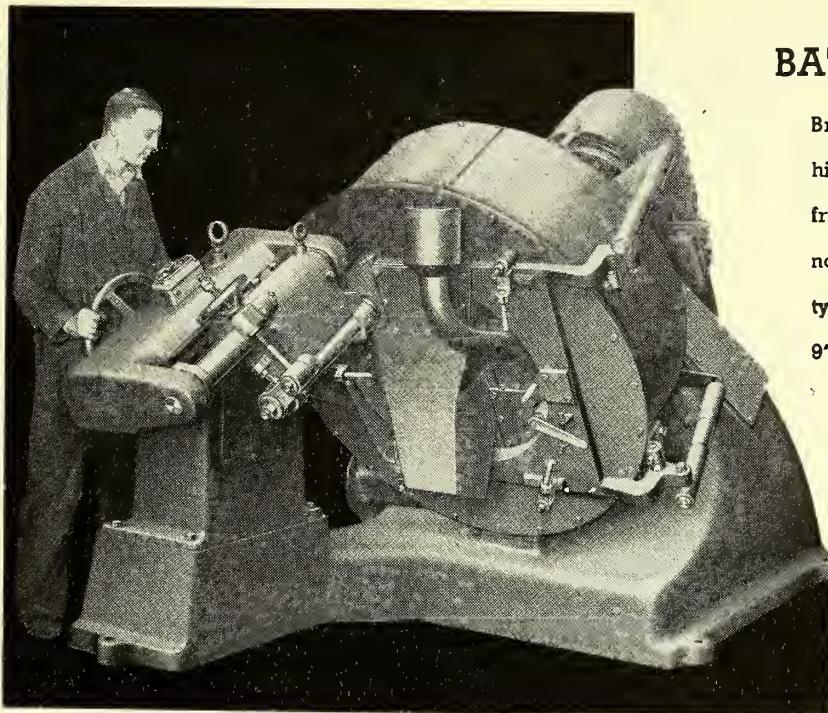
**SODIUM CITRATE**

**B.P.**



If you have a chemical problem,  
 Morsons are at all times glad to  
 place their knowledge and tech-  
 nical resources at your disposal.

**THOMAS MORSON & SON LTD.**  
 Ponders End, Middlesex



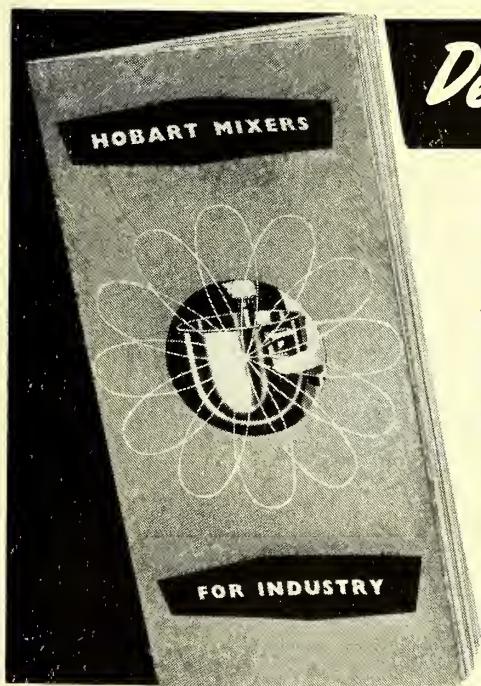
## BATCH PRODUCTION

Broadbent's electrically driven high-speed Centrifugals process freely filtering materials and non-filtering slurries, and with types and sizes ranging from 9" to 72" basket diameter are ready to solve your separating problems quickly and efficiently

Technical advice on receipt of enquiry

PHONE 5520/5

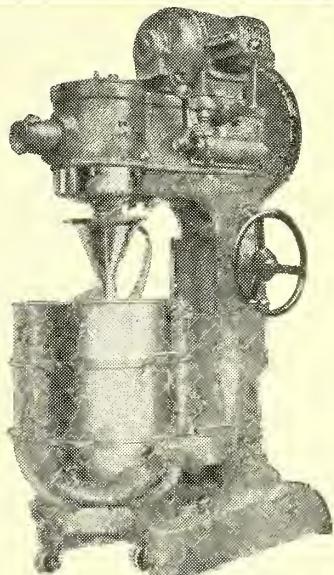
**THOMAS BROADBENT & SONS LTD HUDDERSFIELD**



## Designed Specially for You!

Send for this booklet  
on HOBART mixers  
for the Cosmetic,  
Pharmaceutical and  
allied industries.

For specialised and standard mixings the Hobart Mixer is unequalled. Its unique action—planetary, with an epicycle movement—brings mixing to perfection. Its range of mixing speeds, its variety of mixing tools, and its mixing capacities have been designed to meet every industrial requirement. Please write for full details.

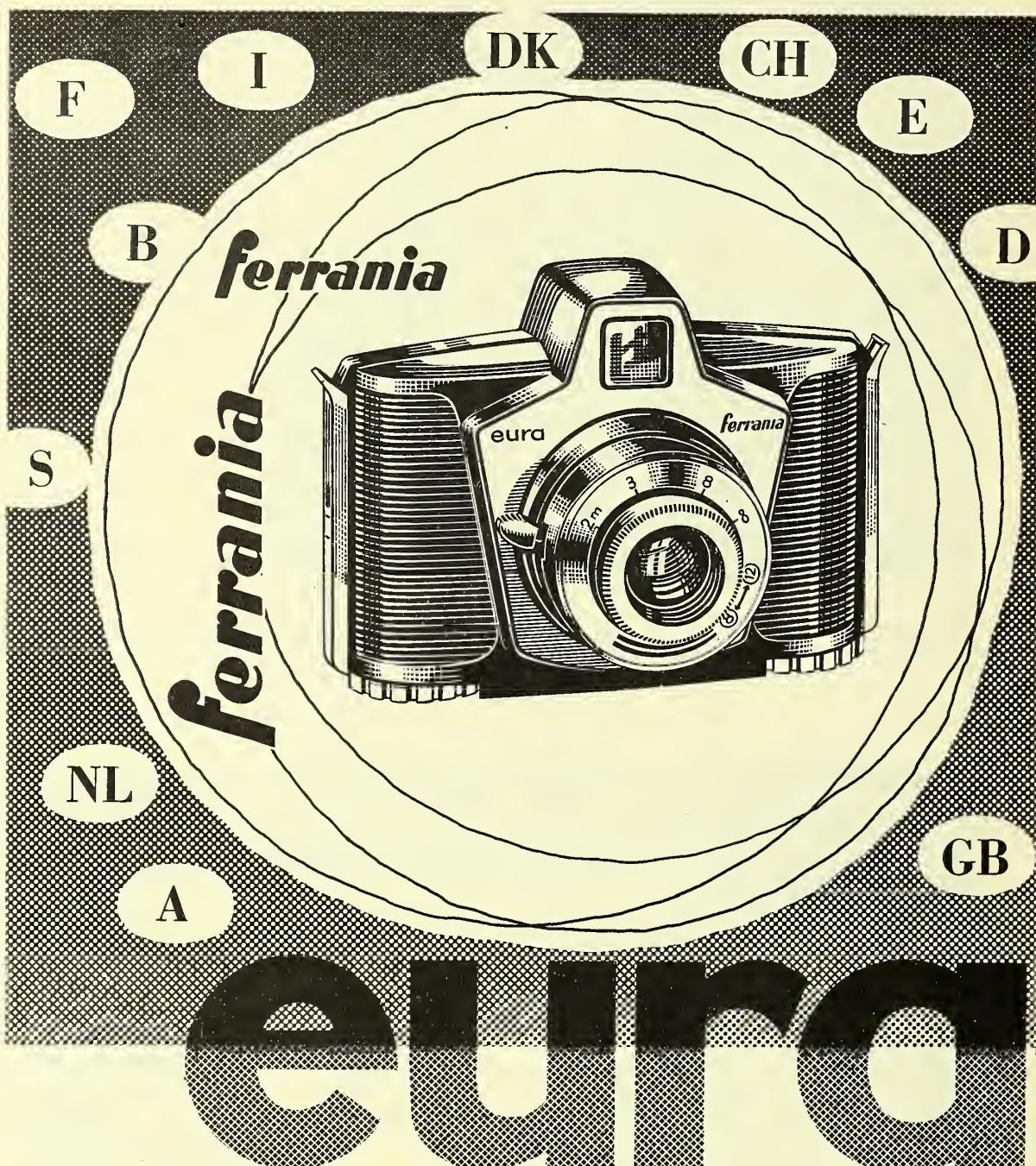


**THE HOBART MANUFACTURING COMPANY LTD**

**HOBART CORNER, NEW SOUTHGATE, LONDON, N.11.** Telephone: ENTerprise 1212

Divisional Offices and Service Depots at: BELFAST 45770. BIRMINGHAM: Midland 1518/9. BRISTOL 20208  
CARDIFF 30546. DUBLIN 77212. GLASGOW: Shettleston 3471/2. LEEDS 27665. LIVERPOOL: Royal 3254  
MANCHESTER: Ardwick 1169. NEWCASTLE-on-TYNE: Low Fell 7-5279. NOTTINGHAM 84771





### EURA 66

A popular camera for taking holiday snaps in black & white and colour, and "flash snaps"

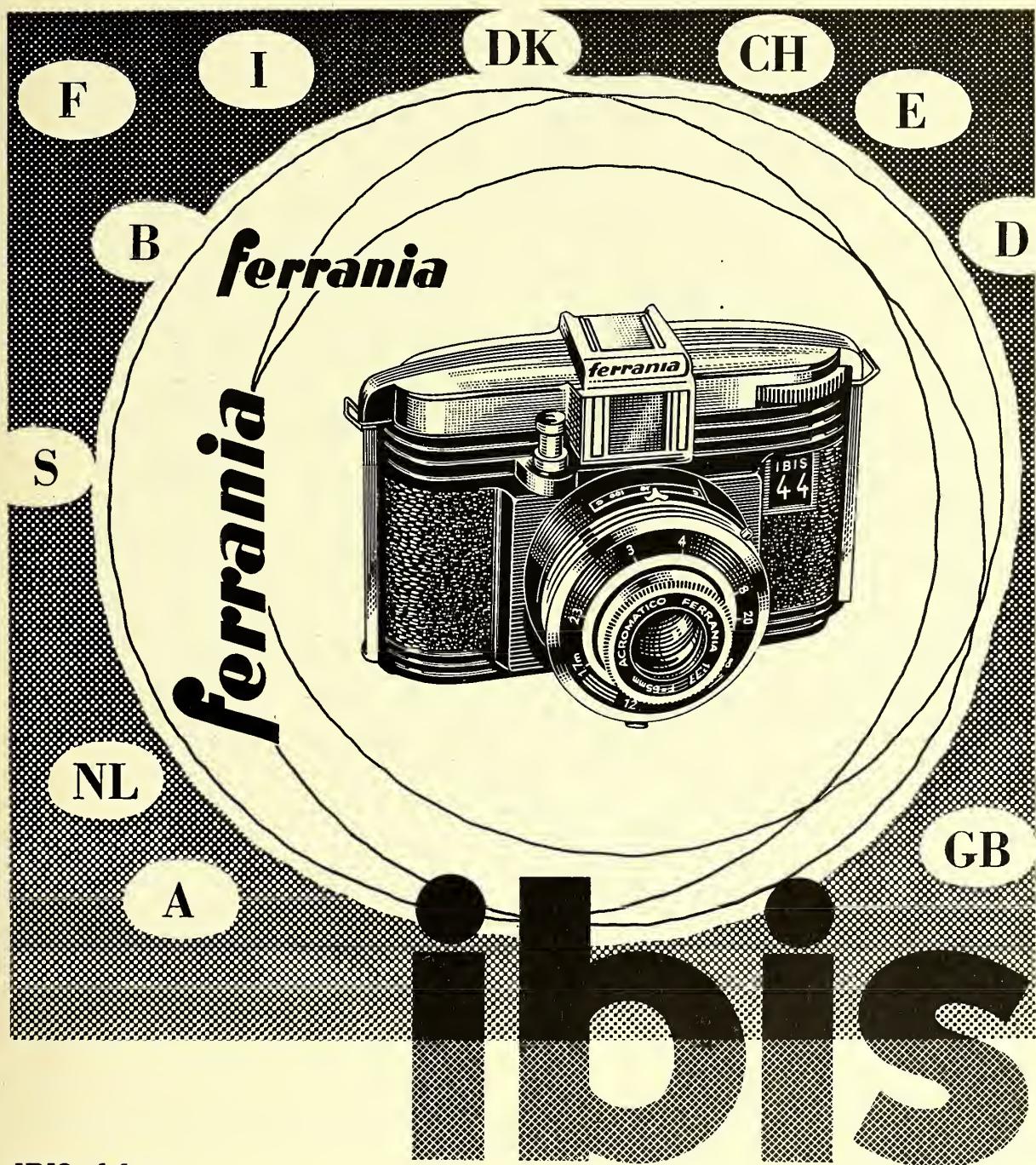
Takes 12 pictures  $6 \times 6$  cm. ( $2\frac{1}{4} \times 2\frac{1}{4}$ ) on No. 120 size roll film. Single speed shutter is synchronised for flash and the lens can be focussed from 6 ft. to infinity. The built-in optical viewfinder gives a brilliant image and the back of the camera is removable for easy loading. Spring-loaded accessory shoe

and standard English tripod socket. There is also a removable shoulder strap. The body is strongly made of plastic and metal excellently finished, and the appearance is attractive as can be seen from the illustration.

RETAIL PRICE 49/6  
Ever-ready case 10/6

Sole Wholesale Distributors :

**NEVILLE BROWN & CO. LTD.,**



## IBIS 44

This most recent addition to the range of Ferrania Ibis cameras takes 12 square pictures 4 x 4 cm. on No. 127 roll film, a size which is becoming increasingly popular on the Continent. The lens is a Ferrania f/7.7 65 mm. Acromatic and the shutter speeds are 1/100, 1/50 and 1/25 sec. The shutter is synchronised for flash.

It has a double exposure prevention device, including a red marker, an accessory shoe to take flashgun, etc., standard tripod socket, removable shoulder strap and large brilliant optical view-finder. It also has a diecast light alloy body covered with imitation Morocco leather and metal parts are chrome

plated, polished or enamelled. A fine robust camera for holiday pictures.

**RETAIL PRICE £4 • 17 • 6**  
Ever-ready case 18/1

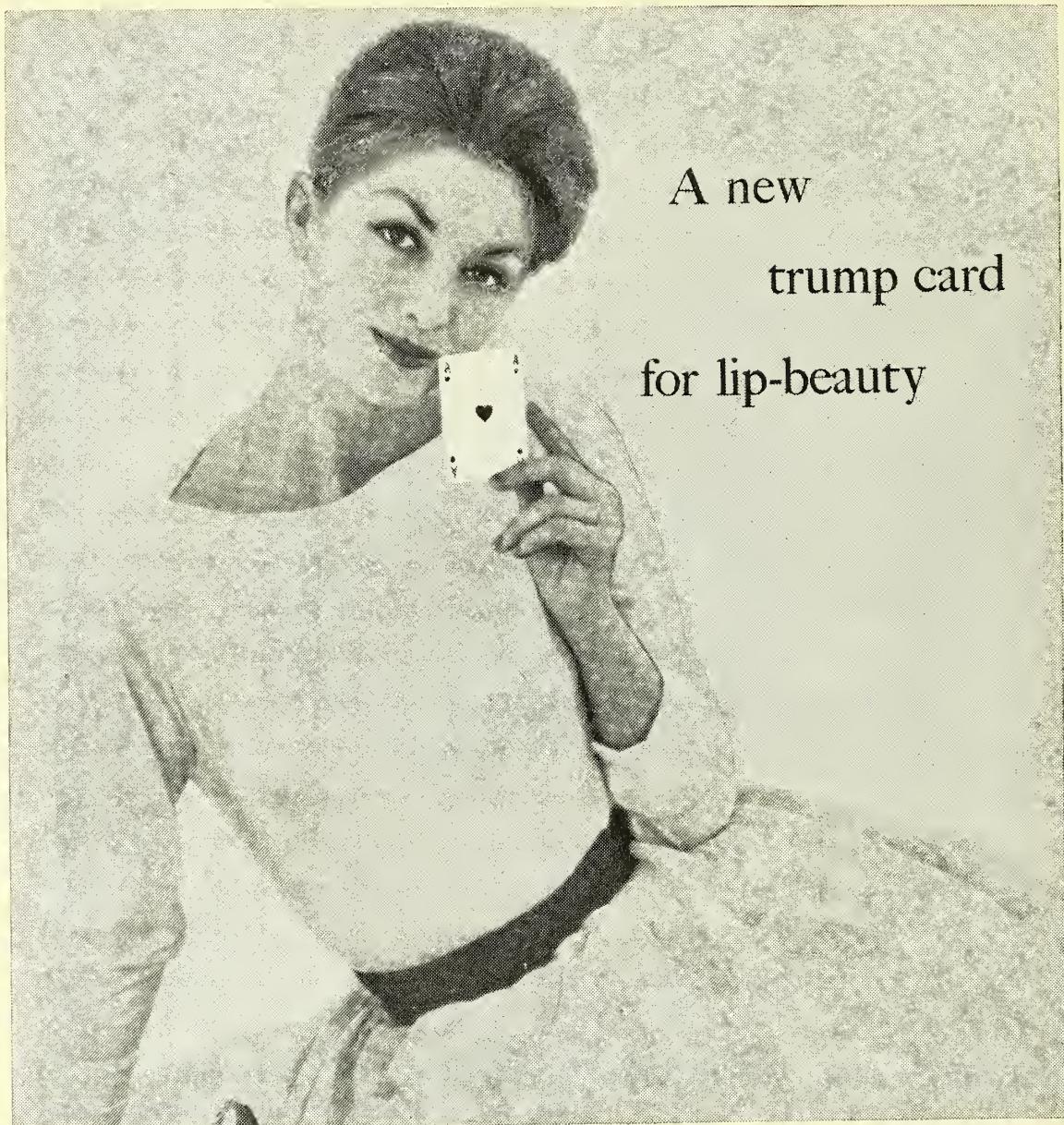
## IBIS 34

Takes 16 pictures on 127 roll film.

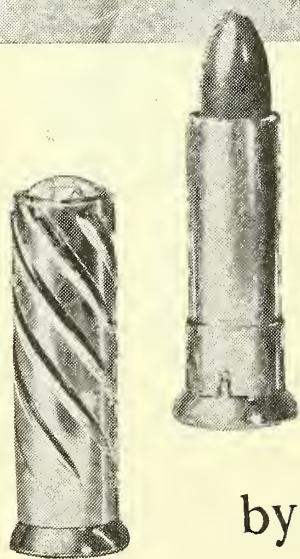
**RETAIL PRICE £4 • 9 • 6**  
Ever-ready case 18/1

Trade Counter  
3 BERNERS MEWS • W.1  
(rear of building)  
Tel: LANGham 7161 (10 lines)





A new  
trump card  
for lip-beauty



## *Ace of hearts*

A new lipstick by Yardley always intrigues women, so put your stake on the latest winner — Ace of Hearts. It will be introduced with advertising as attractive and compelling as the colour itself. Order now — and be ready for the first demand

by **YARDLEY**

# MATTHEWS AND WILSON

For Your  
**TABLETS**

We have long experience in the  
**FORMULATION AND MANUFACTURE**  
of medicinal tablets of all types for  
pharmaceutical organisations, hospital  
authorities and proprietary houses,  
both at home and for most countries  
of the world—All standard B.P., B.P.C.,  
N.F. Tablets are stocked for  
prompt delivery

*Customer's Materials Processed  
Home and Export Inquiries Invited*

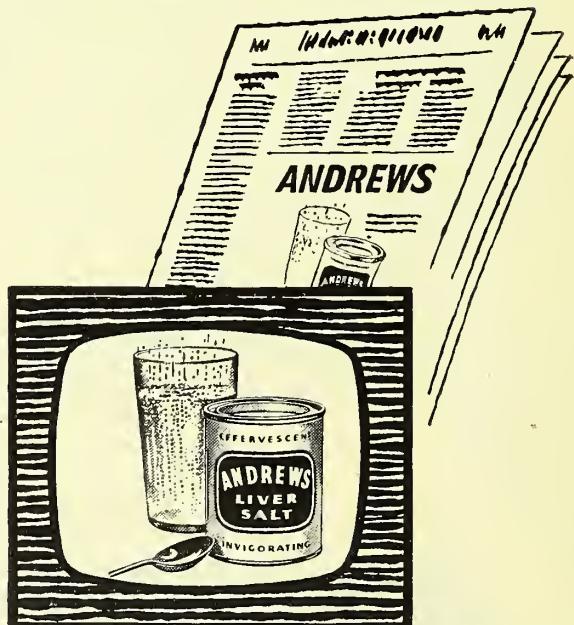
**MATTHEWS & WILSON LTD.**

Larkhall Works, Morrish Road, London, S.W.2. Tel:TULSE HILL 5881/2



**is the latest date to qualify for  
ANDREWS  
SPRING BONUS**

If you have not placed your order to qualify for Andrews Spring Bonus do it NOW! April the 24th is the closing date so stock right up, be ready for the demand that will follow intensive Andrews advertising. Eye catching advertisements will appear in the National and Provincial Press. T.V. advertising will appear on all I.T.V. Stations throughout the Spring and Summer. Don't delay, send your order and qualify for ANDREWS SPRING BONUS.



If you have not received details of Andrews Spring Bonus write to

**Scott & Turner Ltd., Andrews House, Newcastle upon Tyne**

A PRODUCT OF RESEARCH

AVAILABLE FOR PRESCRIPTION NOW

ORAL IRON-A NEW PRESENTATION

# FERROMYN Capsules

Many constructive reports originating from doctors who are prescribing **FERROMYN** in many countries throughout the world sponsored the developments to improve its effectiveness still further. It became evident that it was necessary to present **FERROMYN** in a new form to achieve an even more rapid disintegration, coupled with increased stability.

During the past two years, tests have been carried out presenting Ferrous Succinate in many forms—**THE MOST SATISFACTORY OF WHICH HAS PROVED TO BE A CAPSULE.**

Providing these outstanding advantages :

- (i) ferric iron content is not more than 0.5 mg. and does not increase on prolonged storage.
- (ii) disintegration is rapid (5 minutes).
- (iii) intolerance is less than 1%.
- (iv) haemoglobin response is 1%—2% per day.

**FERROMYN** (Ferrous Succinate), originated and developed in our own laboratories, is prepared from the mild, atoxic ferrous salt of succinic acid and is one of the most effective organic iron salts, requiring no other additives to produce a rapid haemoglobin response or to reduce the intolerance and side effects usually associated with oral ferro-therapy.

## FERROMYN IN 3 FORMS: CAPSULES, TABLETS, ELIXIR

### FORMULAE

#### FERROMYN

Each capsule/tablet/teaspoonful contains:  
Ferrous Succinate . . . . . 150 mg

#### FERROMYN 'B'

Each capsule/tablet/teaspoonful contains:  
Ferrous Succinate . . . . . 150 mg  
Aneurine Hydrochloride . . . . . 1 mg  
Riboflavin . . . . . 1 mg.  
Nicotinamide . . . . . 10 mg.

### DOSAGE

one capsule, tablet or teaspoonful  
between meals or as prescribed.

### PRESENTATION

**FERROMYN** Capsules } Tablets }  
Packs of 100 and 1,000  
Trade Price : from 1,000 dispensing pack.  
100 capsules/tablets 3/- + P.T.

#### FERROMYN Elixir

Bottles of 4 ozs. and 20 ozs.  
Trade Price :  
4 ozs. elixir 4/3 + P.T.

**FERROMYN 'B'** Capsules } Tablets }  
Packs of 100 and 1,000  
Trade Price : from 1,000 dispensing pack.  
100 capsules/tablets 3/9, exempt P.T.

#### FERROMYN 'B' Elixir

Bottles of 4 ozs. and 20 ozs.  
Trade Price :  
4 oz. elixir 4/6, exempt P.T.

**CALMIC**

purely British Pharmaceuticals

CALMIC LIMITED · CREWE HALL · CREWE · CHESHIRE · Crewe 3251/7

# Certor

Regd.

## film wrapped cartonned dressings

B.P.C

### An outstanding range

worthy  
of  
modern  
pharmacy

*At packet  
prices!*

PACKETS DISCONTINUED



- Keep ahead with Certor Cartonned Dressings
- Heat-sealed film-wrapping
- Greater protection for the dressing
- Brilliant on display

—all this at no extra cost; the same price as packet dressings

**For your 1959 contract—**

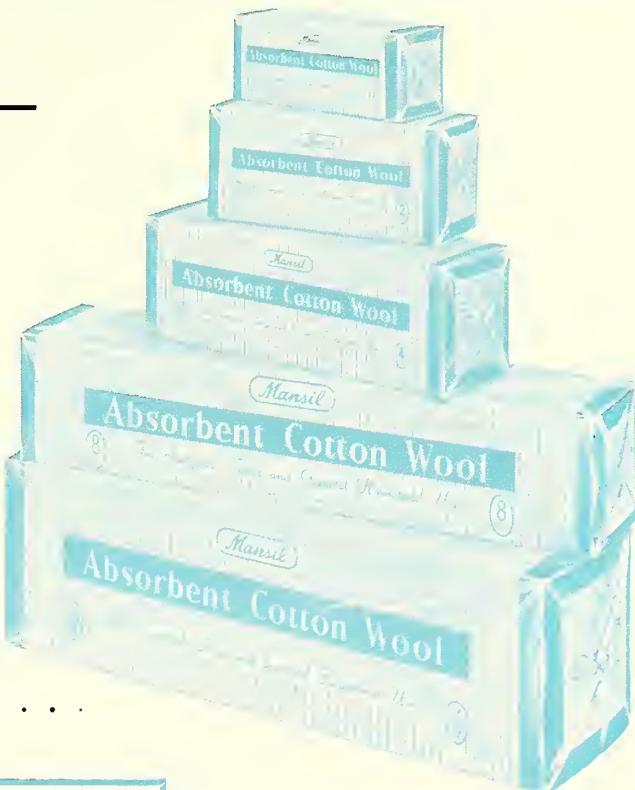
*Certor*  
Regd.

## **SURGICAL DRESSINGS**

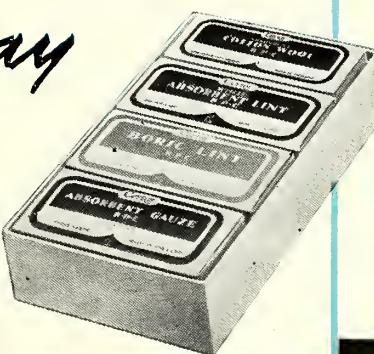
B·P·C

**and Mansil Hospital Cotton Wool  
IN FILM-WRAPPED  
CARTONS**

*Better for your customers . . . better for you . . .*



*Send today  
for this  
sample  
range*



### **THE CERTOR DRESSINGS COLOURS**

**BLUE** cartons for Cotton wool.

**GREEN** for White Lint.

**RED** for Boric Lint.

**MAROON** for Gauze.

**MACDONALD & SON LTD. of MANCHESTER & LONDON**  
PORTLAND MILL, ASHTON-UNDER-LYNE, LANCS. 25 HOLYWELL ROW, LONDON, E.C.2  
TELEPHONES: ASHTON-UNDER-LYNE 4422 (10 LINES). BISHOPSGATE 4809 (2 LINES)



SPARE **2** MINS.  
A DAY!

*for the sake of your Hair*

**Harlene**

FOR THE HAIR



**FREE  
DISPLAY UNIT**

# Harlene

**ANNOUNCE A NEW  
CAMPAIGN TO  
HELP YOUR SALES**

★ **Bonus Offer**

10% extra discount on all orders above 1 dozen Harlene Hair Tonic and  $\frac{1}{2}$  dozen Harlene Hair Conditioner placed before May 4th.

Order through your usual wholesaler or directly to us—advising us of your normal supplier.

★ **Television Campaign**

★ **Free Counter Display Unit with orders  
of 1 Dozen or more. (Shown opposite)**

★ **New Harlene Hair Tonic Pack**

★ **New Harlene Hair Conditioner**

★ **New Camomile Golden Hairwash Pack**

---

**FOR FURTHER DETAILS CONTACT YOUR WHOLESALER  
OR EDWARDS HARLENE LTD., 58 GOUGH ST., W.C.I**



**BARNET**

*Ultraglaze*



# The stylish lightweights with the Guaranteed Crookes Glass Lenses

And for wonderful **BARNET**  
sunglasses selling from 2/- to 7/6  
ask to see the new  
**LEADER RANGE**

Yes, the sunglasses with everything  
for top sales this summer . . .  
top styling . . . top value (only 12/6  
& 15/6) . . . top TV and Press support  
. . . top impact in unique **FREE**  
sales dispensers . . .

*Order quickly from your wholesaler!*

**TOP PROFITS**

# max BONUS OFFER

## goes on to April 30th

**2 1/2%**

Extra discount orders  
of 1½ dozen  
(½ dozen of each)

**5%**

Extra discount orders  
of 3 dozen  
(1 dozen of each)

**7 1/2%**

Extra discount orders  
of 6 dozen  
(your choice)

**The retail price is 4/6**

max  
the *New* aerosol range

*on T.V. every night  
for 14 weeks  
from 4<sup>th</sup> of MAY*

**BONUS T.V. FOR MIDLANDS AND NORTH  
WITH CUP FINAL SPOTS ON MAY 2nd**



THE RADIO TIMES EVERY WEEK FOR 13 WEEKS

THE T.V. TIMES EVERY WEEK FOR 11 WEEKS

FULL BACKING IN THE WOMEN'S MAGAZINES

CONTINUOUSLY FOR FOUR MONTHS STARTING MAY.

*Plus*

*\* Stock up with max*

*Get on to your wholesaler to-day!*

**MONDART LIMITED**

49 PARK LANE, LONDON, W.1. HYDe Park 2155



## Customers come back for more

Vitavel Syrup is one of the most effective vitamin supplements it is possible to offer your customer over the counter . . . and one of the most delicious. Containing vitamins A, B<sub>1</sub>, C and D and an orange base with glucose, it is particularly effective after illness and other debilitating conditions and is greatly liked by customers of all ages.

## VITAVEL SYRUP

*One fluid ounce contains at time of manufacture:—*

VITAMIN A 20,000 I.U. • VITAMIN D 3,000 I.U. • VITAMIN B<sub>1</sub> 4 MG.  
VITAMIN C 80 MG. • LIQUID GLUCOSE B.P. 25% W/V.

*Basic price to N.H.S. 6 fl. ozs. 2/6, 40 fl. ozs. 16/- You make 1/3 profit on each 6 fl. oz. bottle sold*

VITAMINS LIMITED (DEPT. AA.I.) UPPER MALL, LONDON, W.6



Vitavel Syrup combines  
effective action and  
attractive taste

**"Don't forget the Bemax, mummy!"**



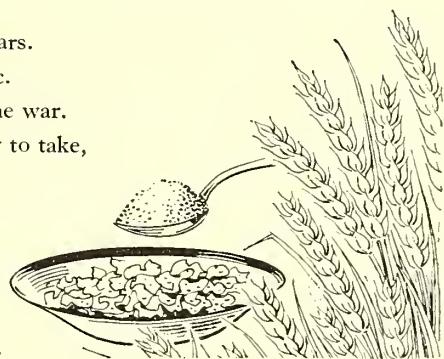
**BEMAX** is an asset for 6 good reasons

- BEMAX is the richest natural vitamin-protein-mineral supplement containing 27% protein, the whole of the vitamin B complex, and iron—all in their natural state.
- BEMAX improves and maintains health—specially in the trying months of winter and spring.
- Doctors have recommended BEMAX for over 30 years.
- Regular advertising keeps BEMAX before the public.
- The price of BEMAX has never been raised since the war.
- BEMAX helps to keep the whole family well, is easy to take, good for both appetite and digestion.

*You—and your customers—are bound to benefit from*

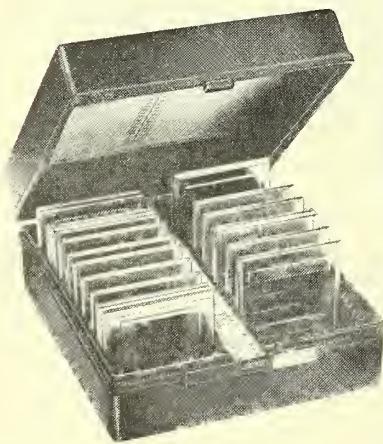
**BEMAX** STABILIZED  
WHEAT GERM

VITAMINS LTD., UPPER MALL, LONDON, W.6.

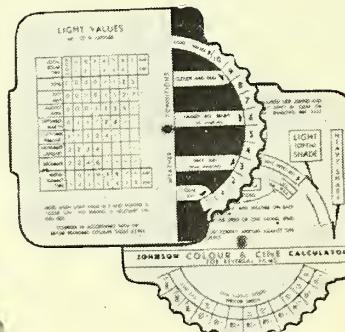


# PUT SPRING INTO YOUR SALES— THIS EASY WAY!

Johnson accessories sell on sight. So display them well. They'll repay you well, especially now it's spring.



**COLORTHENE 35 mm. SLIDE BOX**  
—strongly moulded in maroon-coloured, shock-resistant polythene, with numbered slots (tapered for easy insertion and removal) for 60 mounted slides. Index card in lid. 9/6d.



#### EXPOSURE CALCULATORS

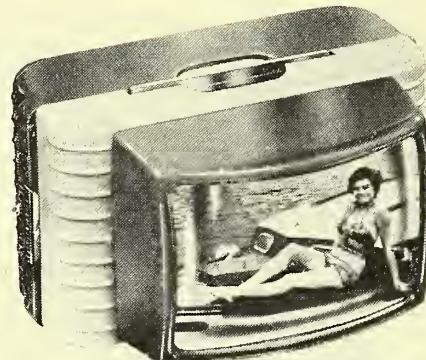
These ingeniously designed "dial" calculators provide a simple and quick means of arriving at a correct exposure for any set of conditions. No calculation is necessary.

**STANDARD DAYLIGHT 3/-**  
**COLOUR AND CINE 4/6d.**

**FOR CONFIDENCE IN PHOTOGRAPHY**

**JOHNSONS OF HENDON LTD.**

*London Showrooms: 94 HIGH HOLBORN, LONDON, W.C.1 · Branches: MANCHESTER AND GLASGOW*



#### JUMBO 35 VIEWER

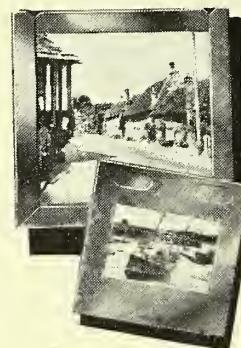
*for 35 mm. colour transparencies*

Large double optically-ground lens magnifies fourfold. Slight finger pressure controls light to avoid battery wastage. Styled in two-colour plastic. 38/6. Batteries 10d.

#### JUMBO 66 VIEWER

*for 2½ x 2½ in. (6 x 6 cm.) colour transparencies in standard 2½ x 2½ in. frames*

Optically-polished 3 in. wide square-cut magnifying lens. Slight finger pressure controls light to avoid battery wastage. Two bulbs in scientifically designed reflector ensure even, brilliant illumination. 63/-. Batteries 1/3d.



#### COLORSLIDES

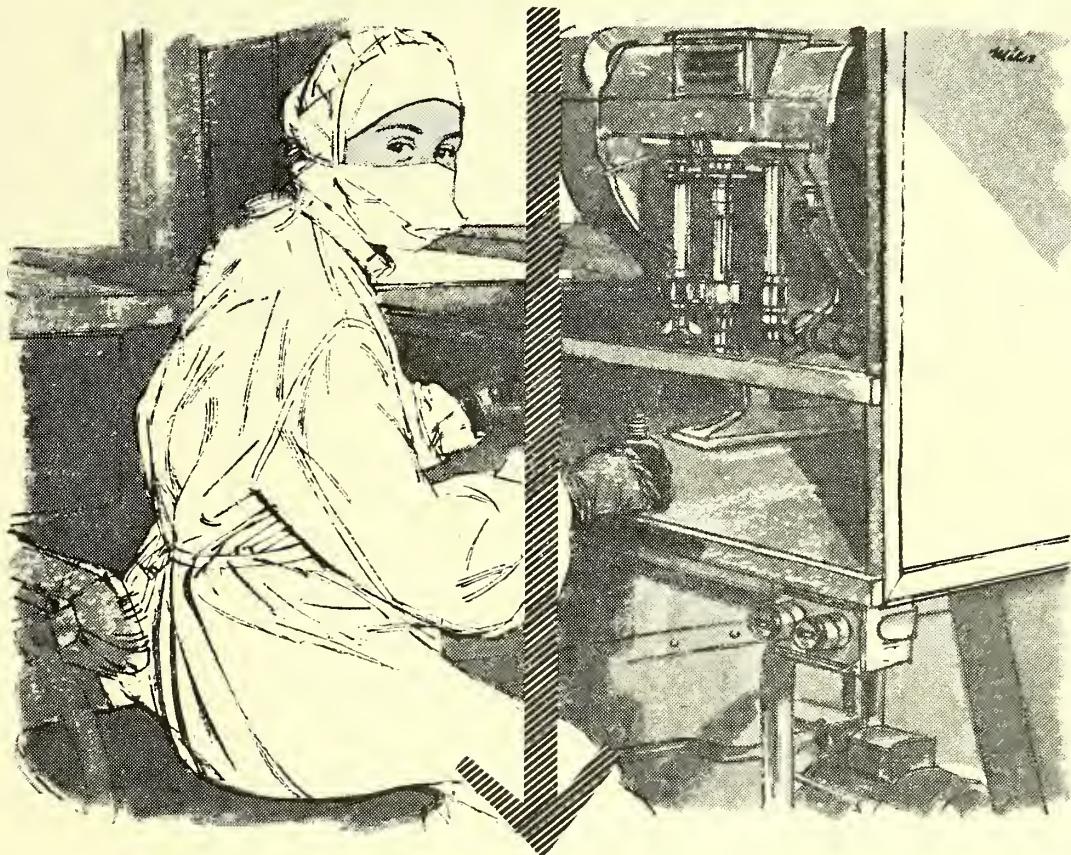
Protect your transparencies permanently both in storage and in use in Johnson Colorsides. These all-metal mounts are exceptionally easy to load, never warp or twist with the projector's heat, and the satin finish reflects the heat, keeping the slide cool. Each Colorslide is provided with two cover glasses.

**COLORSLIDE 35 2 x 2 in. for 35 mm.**  
Transparencies per box of 20—10/6d.  
**COLORSLIDE 66 2½ x 2½ in. for 2½ in.**  
square Transparencies per box of 12—10/6d.

**JOHNSONS**  
OF HENDON LTD.

# DOWN COME COSTS

AS *Nylon* GOES TO WORK



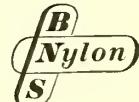
**Nylon** WORK WEAR saves money not only on a cost-for-life basis but also indirectly by reducing running costs and by increasing efficiency all round. Overalls, Lab. Coats, Clean Area Suits, Aprons and Gloves—all are available now in nylon. All have these important advantages:—

**Easy laundering**  
**Lint-free**

**Longer, smarter wear**  
**Better hygiene**

**Shrink-proof**  
**Light and comfortable**

Write to **BRITISH NYLON SPINNERS LIMITED**  
Marketing Department, 68 Knightsbridge, London, S.W.1, for your  
free copy of 'NYLON'S OVERALL ADVANTAGES'.





TO  
SPEED  
YOUR  
DISPENSING

ALL MAW'S ETHICAL PRODUCTS  
are now directly available  
through your usual Prescription Wholesalers:

TANCOLIN

3 oz., 6 oz., and 2 litre  
Dispensing Pack

HEMATRIX

Ointment, Suppositories  
and Tablets

ZONULYSIN

THROMBIN

THROMBORAL

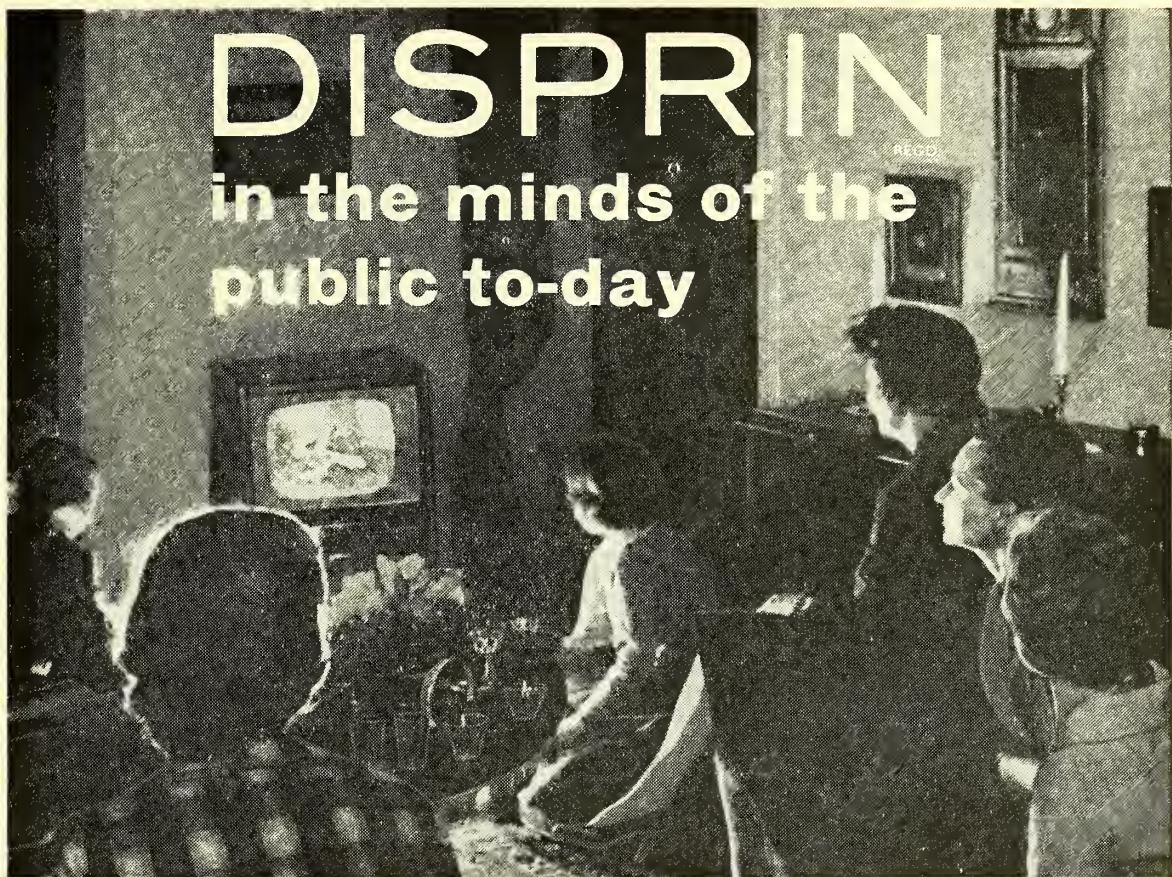
THROMBOPLASTIN

NAPHTHIONIN

REAZIDE

NADECON

**MAW'S ETHICAL PRODUCTS**



***Advertisements on TV reach 18,000,000 people,  
and press advertising 26,000,000***

Through the compelling medium of television, and powerful advertisements in the national daily and Sunday newspapers, the advantages of Disprin are being firmly impressed on the public mind.

This wide-scale advertising is aimed to educate the public in the qualities of Disprin as a speedy, safe, pain-reliever; an analgesic which, because it

dissolves, averts the danger common to non-soluble aspirins—that of acid particles of tablet lingering in the stomach to cause gastric disorder.

So when your customers ask you for an analgesic to relieve headaches, 'flu, rheumatism, neuralgia and similar ailments, recommend soluble Disprin—the analgesic approved by the medical profession.

***Take advantage of large-scale DISPRIN advertising –  
see that you have full stocks of DISPRIN***



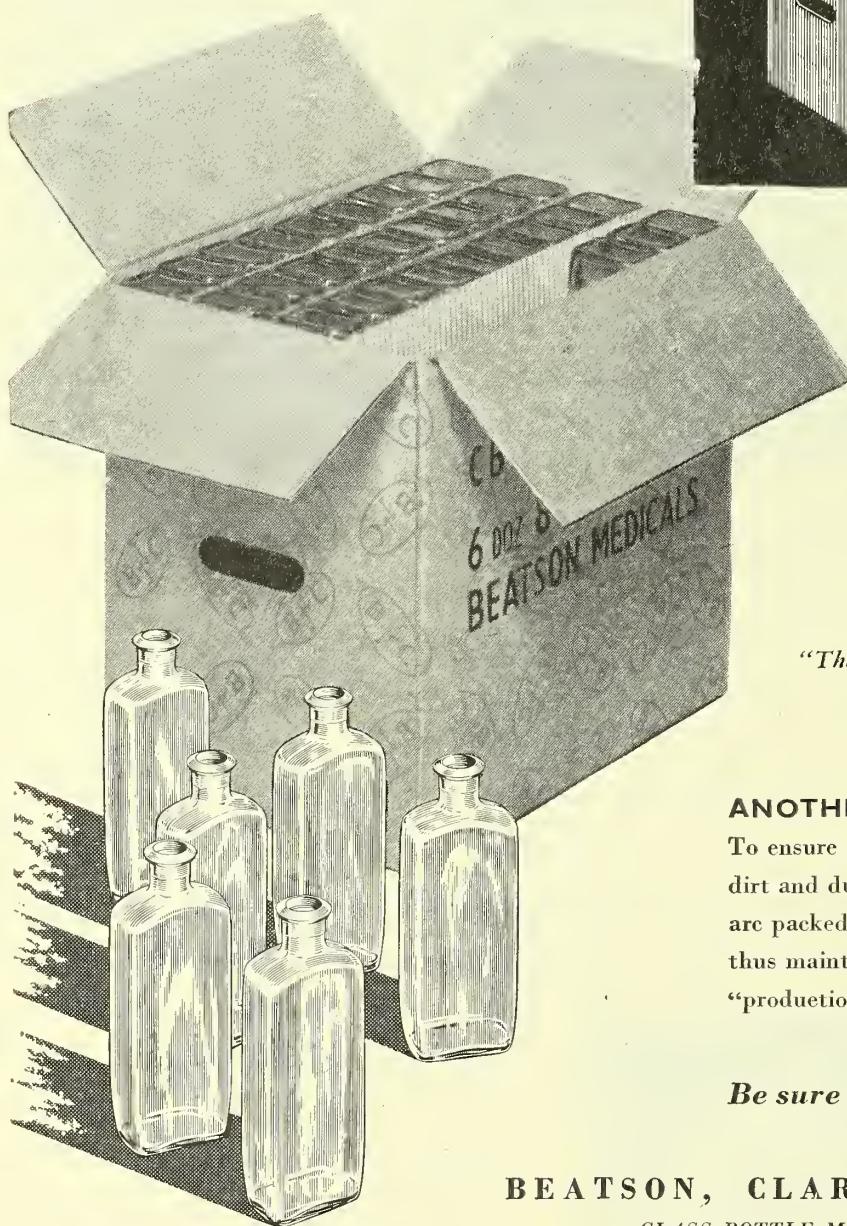
**DISPRIN**  
REGD.

**RETAIL PRICES** (incl. P.T.) 100-tablet foil 5/6; 50-tablet bottle 3/3; 28-tablet foil 1/1½; 26-tablet bottle 1/1½; 8-tablet foil gd.

**TRADE PRICES** (excl. P.T.) 100-tablet foil 38/10 doz.; 50-tablet bottle 23/- doz.; 28-tablet foil 13/10 doz.; 26-tablet bottle 13/10 doz.; 8-tablet foil 5/2 doz.

RECKITT & SONS LTD., PHARMACEUTICAL DEPARTMENT, HULL

*For cleaner storage . . .*  
**The Beatson Medical**  
*now in the*  
**Beatson Sealed Carton**



"The Sign of a  Good Bottle"

**ANOTHER BEATSON SERVICE!**

To ensure maximum protection against dirt and dust, all Beatson Medieals are packed in the Beatson Sealed Carton thus maintaining the bottles in "production clean" condition until use.

*Be sure to specify BEATSON*

**BEATSON, CLARK & CO. LTD.**

GLASS BOTTLE MANUFACTURERS

BC 92 (R)

ROOTHERHAM

(Established 1751)

YORKS

# FIGGERROLLS

## will help to increase your sales of STARCH-REDUCED ROLLS

• • • • • • • • • • • • • • • • • • •

### A NEW FLAVOUR FOR DIABETICS AND SLIMMERS

Diabetics and slimmers alike will welcome the appetising whole wheat flavour of starch-reduced Figgerrolls—crisp and delicious, they are a delicious break in the monotony of an ordinary low starch diet. Figgerrolls are made with nutritionally valuable fresh wheat gluten, and they are enriched with specially processed wheat germ and the most nutritious parts of the bran. In the manufacture of Figgerrolls every care is taken to ensure that each roll contains the stated amount of protein.



### ANALYSIS

For diietic or medical purposes

	Gm./oz.
Protein (N X 5.7) .....	11.5
Carbohydrates .....	11.7
Fat .....	1.4
Salt .....	0.6

Calories 107 per oz.  
Four Figgerrolls  
weigh approx. 1 oz.

### TRADE TERMS

12 x 30 roll packs 24/- per case  
24 x 10 roll packs 23/- per case  
Order from your usual wholesaler

**WHITWORTH'S**  
STARCH-REDUCED  
**FIGGERROLLS**

WHITWORTHS HOLDINGS LIMITED · WELLINGBOROUGH · NORTHANTS

# BIG PROFITS . . .

## from a small display



In sales value per square inch of your counter the 4" x 3" red, yellow and black RALGEX outer pays and pays again for prominence without encroachment. Ralgex is a first-class pick-up repeater line—established in the forefront of pain-relieving remedies and the only solid embrocation for

BACKACHE · NEURALGIA · STIFF NECK · LUMBAGO  
RHEUMATISM · STRAINED MUSCLES

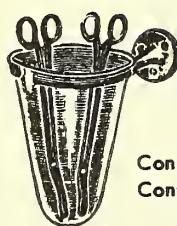
Display Nationally  
advertised 'RALGEX'  
the only line of its kind



Worth-while profit from every sale  
of the reach-it-yourself handy Ralgex  
stick.

PHARMAX LIMITED, WESTERN HOUSE, GRAVEL HILL, BEXLEYHEATH, KENT

WHOLESALE

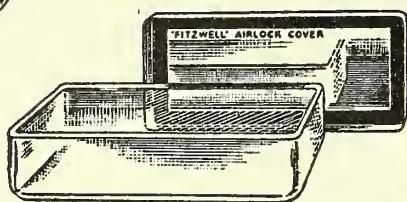


Conical Forceps  
Container

A. SEARLE & CO.  
SURGICAL INSTRUMENT  
MANUFACTURERS

AND EXPORT

Cheatles Forceps Jar In Glass  
or Chrome Plated



Tray with Fitzwell Air Lock Cover



Medicament Bottle Stand

A. SEARLE & CO.

SERLANCO HOUSE, 245 St. JOHN ST., CLERKENWELL, LONDON, E.C.1

Telephones: Terminus 1617, 1618

Telegrams: "Serisurg, Smith, London"

Cables: A.B.C. and Bentleys

*A Wholesale  
service that is  
different*

*Specialising in the  
distribution of*

**ETHICAL PHARMACEUTICALS  
DRUGS AND CHEMICALS  
MEDICAL AND SURGICAL  
SUNDRIES**

**OUR NEW PRICE LIST DETAILS  
OVER 2000 NAMED 'ETHICAL'  
PHARMACEUTICALS**

We carry these in stock in all their various presentations and packs in both our Romford, Essex and Sidcup, Kent premises.

**MACARTHYS**  
(WHOLESALE CHEMISTS) LTD

**ROMFORD · ESSEX**

Tel: Romford 46021

**SIDCUP · KENT**

Tel: FO0ts Cray 5511

★ Telephone: Romford 46021 or  
FO0ts Cray 5511 for details of  
our van or postal service



**THE CHEMIST  
AND DRUGGIST**  
ESTABLISHED 1859

The weekly newspaper for pharmacy and all sections of the drug, pharmaceutical and fine chemical, cosmetic, and allied industries

*Official organ of the Pharmaceutical Society of Ireland  
and the Pharmaceutical Society of Northern Ireland*

Volume 171

April 11, 1959

No. 4129

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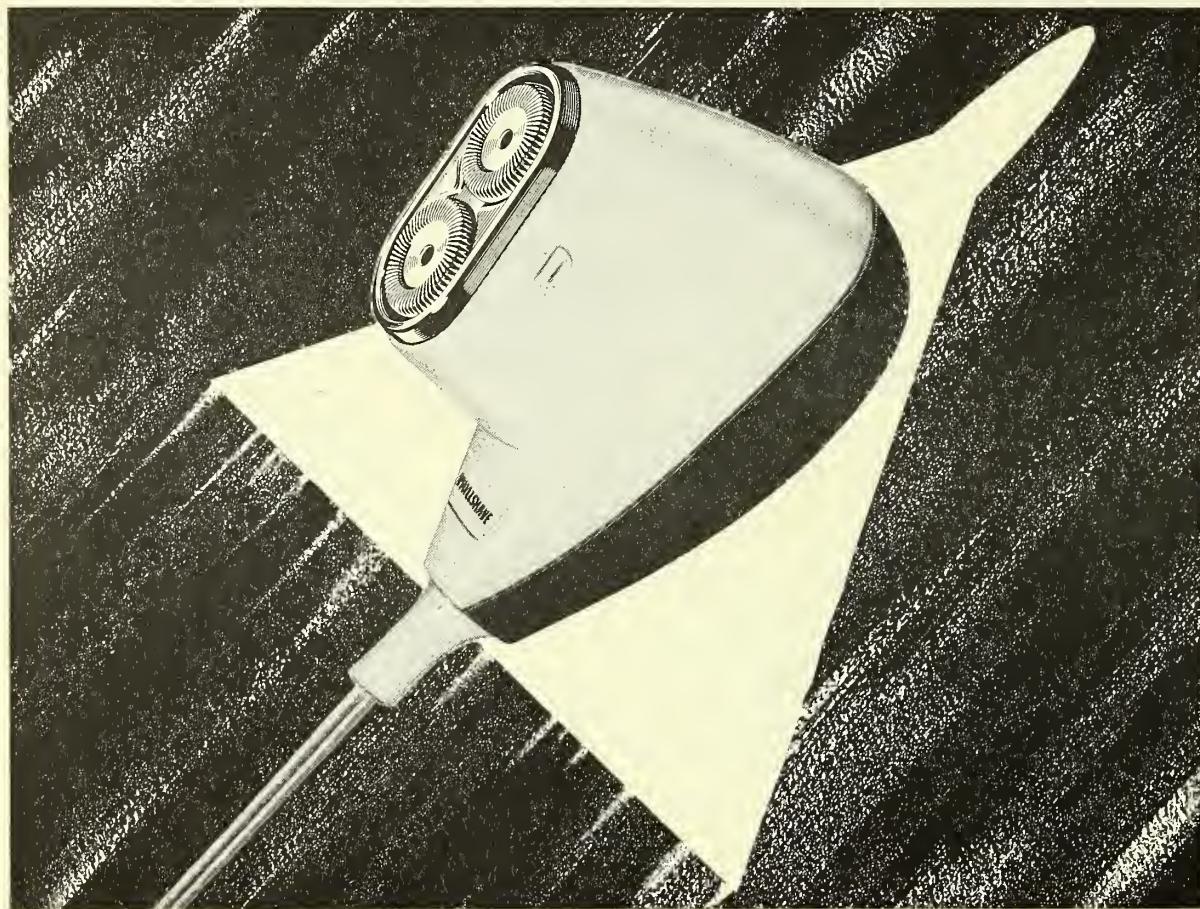
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PUBLISHED BY  
MORGAN BROTHERS (PUBLISHERS), LTD.,  
at 28 Essex Street, Strand, London, W.C.2

Telephone: Central 6565  
Telegrams: Chemicus, Estrand, London

WOLVERHAMPTON: 89 Woodland Avenue, Tettenhall Wood,  
GLASGOW: 160 Nether Auldhause Road, S.3. Phone: Langside 2679.  
LEEDS, 16: 32 Wynford Rise, West Park. Phone: Leeds 67 8438.

ANNUAL SUBSCRIPTION  
which includes The Chemist and Druggist Diary and  
Year Book, £2 10s. Single copies one shilling each.



Your shaver sales can Zoom  
to a new high—with the 'Philishave' Jet

It's the jet age right enough — the 'Philishave' Jet age! For this new version of the world's top-selling dry shaver has the finest shaving technique Man has ever known. It shaves faster. It shaves closer. It shaves more easily and comfortably in every way. In fact, it's got everything — including mammoth advertising. Yes, you're certainly on to a good thing with the 'Philishave' Jet!

The 'Philishave' Jet incorporates :

40% increase in shaving area. Improved motor performance. Very quiet motor. Unique new design for even closer shaving. Larger hair-chamber for shaved bristles. New instant 'Press . . . Blow' Cleaning. New two-tone styling. Dual-voltage: AC/DC 110-130v. and 200-250v.

**£8.15.0 (tax paid)**

The other 'Philishave' models: Standard-volt £6.16.0 (tax paid).  
Battery model £7.11.3 (tax paid).

**PHILIPS**  
**PHILISHAVE** *Jet*

A PRODUCT OF



PHILIPS ELECTRICAL LTD

(PS974A)

# The CHEMIST AND DRUGGIST



Volume 171

APRIL 11, 1959

No. 4129

## Chambers of Trade

### SPRING CONFERENCE MOTIONS

PURCHASE tax, mobile trading and shops legislation, and the Restrictive Trade Practices Act are among subjects to be discussed at the spring conference of the National Chamber of Trade at Hastings April 20-22. West Drayton chamber is to express concern at the continuing growth of mobile trading and move that the appropriate authority should introduce "suitable legislation to regulate such trading." The establishment by the N.C.T. of a special committee "on a wide basis" to review the Shops Act, 1950, "and make recommendations for removing anomalies and modernising the provisions in the light of current conditions" is to be moved by Leeds chamber. The Minister of Housing and Local Government, in a motion proposed by Ashford chamber, is to be urged to "... take ... steps ... to ensure that water undertakers so adjust their charges that commercial consumers are treated with fairness." The establishment of another special committee, "as widely representative as possible," is to be moved by Chiswick, "to review the whole field of purchase tax with

a view to recommendations being made to the Chancellor of the Exchequer for the removal of anomalies and ultimately the complete abandonment of the tax." West Norwood chamber "deplores those clauses in the Restrictive Trade Practices Act which are detrimental to the liberty of the subject and deprive the individual trader of the right to take collective action against manufacturers in an effort to safeguard their livelihood, and urges Her Majesty's Government to amend the Act accordingly."

## Synthetic Penicillin

### ANGLO-U.S. COMPANIES' AGREEMENTS

COLLABORATION in the development of the synthetic penicillins discovered as a result of work carried out at the Beecham Research Laboratories (see *C. & D.*, March 14, p. 283), was announced in New York, United States, on April 2 by the Beecham Group, Ltd., and Bristol Laboratories, Inc., Syracuse, New York. A joint statement by the two companies also said that Messrs. Bristol had been given special rights to make the penicillins discovered by Dr. John C. Sheehan (professor of organic chemistry at Massachusetts In-

stitute of Technology), because of their support of his work. The decision to collaborate was the result of major technical developments in the synthesis of penicillin in both countries. The British company had synthesised about 200 new penicillins since their recent successful production of the basic nucleus of penicillin, 6-amino-penicillanic acid. In the United States important results in the same field had been reported by Dr. Sheehan. One important effect of the agreement would be the production in the United States of any new penicillins resulting from the companies' joint research, and the consequent receipt by the Beecham Group of royalties from sales in America.

## Wine Licences

### LOCAL APPLICATIONS

OFF licences were granted at local licensing sessions recently to the following applicants: *Full*, Mr. F. A. Bills, M.P.S., 29 High Street, Kinver, Stourbridge, Worcs. *Wines*, L. Edwards (Chemists), Ltd., 105 Dale Street, Milnrow, Lancs; R. Lamb (Hazel Grove), Ltd., 289 London Road, Hazel Grove, Cheshire; Middlesbrough Co-operative



**PHARMACY IN A STREET'S "FACE-LIFT":** The Georgian shopfront of Smith & Son, Magdalen Street, Norwich, to which a black and white colour scheme has been given as part of a National Civic Trust plan by which all the premises in the street are being painted in a uniform scheme. Magdalen Street, which was chosen for the Trust's first experiment to show how a historic city can be given a "face-lift," is being "reopened" on May 8 by Mr. Duncan Sandys, who was Housing Minister when he formed the Trust.

Chemists, Ltd. (five branches). *Medicated wines only*, Mr. N. Armstrong, M.P.S., 198 Ridgeway Road, Sheffield, 12, Yorks; Mr. T. A. W. Palmer, M.P.S., Combe Down Pharmacy, The Avenue, Combe Down, Bath, Somerset; Mr. G. Pearson, M.P.S., 1 Canal Street, Whaley Bridge, Derbys. *Spirits*, Mr. C. H. Wright, M.P.S., 2 Trelawney Square, Flint; Mr. H. Stevens, M.P.S., High Street, Kirton, Boston, Lincs. *Beer and cider*, Mr. A. J. Eves, M.P.S., 37 High Street, Wigton, Cumberland. The following applications for licences were refused: Mr. J. W. Evans, M.P.S., 29 Diamond Street, Pembroke Dock, Pembrokes (full); Forresters (Chemists, 1942), Ltd., 93 High Street, Hadleigh, Suffolk (spirits); Mr. D. Kaye, F.P.S. (D. Kaye, Ltd.), 63 Cross Street, Sale, Ches (full).

## Disinfectant Makers

### OFFICERS AND EXECUTIVE COMMITTEE

THE following were elected officers and members of Executive of the British Disinfectant Manufacturers' Association at the Association's annual meeting on March 17:—*Chairman*, Mr. H. C. Askew (Reckitt & Sons, Ltd.); *Vice-chairman*, Mr. S. L. Waide (Newton, Chambers & Co., Ltd.); *Treasurer*, Mr. V. G. Gibbs (Wm. Pearson, Ltd.); *Executive Committee*: Messrs. R. G. Berchem (Jeyes' Sanitary Compounds Co., Ltd.), A. E. Berry (Milton Antiseptic, Ltd.), W. Deans (Killgern Co., Ltd.), W. E. Finch (Prince Regent Tar Co., Ltd.), Wm. Innes (Robert Haldane & Co., Ltd.), N. H. Poynton (Wm. Butler & Co., Bristol, Ltd.), F. W. Pritchard (Pritchards, Ltd.), C. W. Richards (Imperial Chemical Industries, Ltd.), J. K. Wilson (Cooper, McDougall & Robertson, Ltd.).

## Service Recognised

### PRESENTATION TO CHEMIST ALDERMAN

TO mark his forty years' service to the profession in Stoke-on-Trent, alderman J. A. Dale, M.P.S., was recently given a complimentary dinner by North Staffordshire Branch of the Pharmaceutical Society. Mr. G. L. Walton (chairman) on behalf of the branch presented him with a silver cigarette case and a replica of the chairman's badge of office. Mr. Walton said that alderman Dale had earned an impressive list of honours in his profession, and had also served the city council for thirty years (he was lord mayor in 1936). Before the formation of the present Branch of the Pharmaceutical Society, he had been chairman of the former North Staffordshire Chemists' Association. Mrs. Dale was presented by Mrs. Walton with a wooden fruit bowl and bouquet.

## Television Advertising

### AMOUNTS SPENT ON PROPRIETARIES

UNDER the heading "Patent Medicines on Television" the *British Medical Journal* (March 21) published an annotation (p. 776), giving the amounts spent on advertising various types of remedy on television in the period October-December 1958. A total of £1,342,932 is made up as follows:—

Aspirin and headache remedies, £335,000; indigestion remedies, £187,000; laxatives, £127,000; cough and cold remedies, £122,000. Allocations for named products in the same period were: Aspro, £85,000; Beecham's powders, £67,000; Alka-Seltzer, £45,000. In the £20,000-35,000 class were Veno's cough mixture, Fynnon salts, Beecham's pills, Angier's Supavite capsules, Phyllosan, Phosferine tablets and Sanatogen.

## Research Finance

### CRITICISMS OF MEDICAL ALLOCATION

THAT medical research receives an inadequate allocation of funds and that the smallness of medical research facilities in Scotland are discouraging graduates from entering university research are charges made by the *Scottish Medical Journal* in a recent issue. Out of the £300 millions expended annually upon industrial, agricultural, scientific, pharmaceutical and medical research, medical research, says the paper, receives about £8 millions. The Medical Research Council has sixty-four research units, of which one is in Wales, four overseas, four in Scotland and fifty-four in England. The value of total research per head of population is £6, of which medical research receives "the cost equivalent of twenty cigarettes."

## Drug or Otherwise?

### REVIEW AND ADVICE ON CLASSIFICATION

THE Central and Scottish Health Services Councils have authorised their Standing Joint Committee on the Classification of Proprietary Preparations to keep under review the principles laid down by the definition of drugs sub-committee (in published reports) for determining whether preparations should properly be regarded as drugs, foods or toilet preparations and to give guidance on the classification of particular preparations submitted to the Committee. Correspondence on any matters which it is desired to submit

to the Committee should be addressed to the Secretary, Standing Joint Committee on Classification of Proprietary Preparations, Ministry of Health, Savile Row, London, W.1.

## Anti-polio Drive

### OVER 8 MILLION NOW VACCINATED

BY the end of February, states the Ministry of Health, nearly 8 million people in the priority groups in Great Britain had received at least two injections against poliomyelitis. Close on 2 million had received three injections. Out of the 216 million doses issued 7 million doses were the British type and 14.6 million were Salk type. The stocks of vaccine held by local health authorities are given as 1,773,000.

## Economic Survey

### OFFICIAL REPORT FOR 1959

AT the beginning of 1959 the United Kingdom economy was undoubtedly stronger than in the previous year with demand and production rising, states the *Economic Survey* for 1959, published recently by H.M. Stationery Office (price 3s.).

## IRISH NEWS

### THE NORTH

## Health Board

### THREE CASES AGAINST CHEMISTS

THREE cases concerning chemists were considered at the March meeting of the Northern Ireland Health Services Board. A chemist who was found to have dispensed mist, mag, carb. that was "deficient in sodium bicarbonate content" was warned to exercise greater care; a company that supplied Carbri-tal capsules when Chloromycetin were prescribed were severely reprimanded; and a chemist who "failed to supply with reasonable promptness forty-eight Dexedrine tablets . . . and failed to have a registered chemist in attendance at his place of business" was reprimanded.



WHIST: The annual whist drive organised by the Ulster Chemists' Association in aid of the Northern Ireland Chemists' Benevolent Fund, seen in progress at the Pharmaceutical Society's rooms, Belfast. Standing is Mr. J. Caldwell.

## NEWS IN BRIEF

THE Minister of Health (Mr. Derek Walker-Smith) has appointed Mr. A. J. O. Prince to be his assistant private secretary.

THE manufacturing activities of Evans Medical Supplies, Ltd., Speke, Liverpool, 24, were the subject of an illustrated article occupying most of a page in the March 19 issue of the *Liverpool Daily Post*.

FRITH BROS., LTD., chemists and photographic dealers, are taking 120 of their best customers from their branches at Richmond, Twickenham and Kingston in coaches to the Photo Fair at Olympia, May 11-16.

THE Scottish South-eastern Regional Hospital Board has decided to set up a virological laboratory at the City Hospital, Edinburgh. A sum of £28,000 (£6,000 of it for equipment) is being made available by the Wellcome Trust.

THE council of the Society of Chemical Industry has appointed Monsieur E. J. Solvay, Brussels, to succeed Sir Robert Robinson as president; M. Solvay is a direct descendant of the discoverer of the ammonia-soda process which bears his name.

FULL furnishings for a six-bed dormitory in the Westerlea School for Spastics, Edinburgh, which was handed over at a ceremony on March 28, were provided by T. & H. Smith Ltd., and Duncan Flockhart & Co., Ltd., Edinburgh.

TRIALS are under way in Montgomeryshire, and starting shortly in East Anglia, aimed at increasing the number of calves from cows by injection of gonadotrophin (in pregnant mare serum) during the follicular stage of oestrus. The method, it is hoped, will increase to 130-50 the calf yield per 100 cows.

## IRISH BREVITIES

### THE REPUBLIC

MR. P. J. O'Brien (chief inspector, Pharmaceutical Society of Ireland) has become engaged to Miss M. Woods, Dublin.

THE result of the draw on the Grand National, run by the College of Pharmacy Gaelic Football Club, was: 1 (£30), Miss K. O'Dowd, 414 Collins Avenue, Whitehall, Dublin; 2 (£20), Mr. B. A. Brady, Grove Avenue, Blackrock; 3 (£10), Nellie Kelly, c/o Seller.

A MOTION, "That Ireland's foreign policy is not in accordance with the will of the majority of the people," was debated at the Pharmaceutical Society of Ireland's headquarters, Shrewsbury Road, Ballsbridge, recently, under the auspices of the Students' Council. The motion was declared lost. Sir Anthony Esmonde, M.D., T.D., proposed the motion and Mr. Lionel Booth, M.A., T.D., was the chief speaker against. Other speakers included Miss Alice Esmonde (a lecturer at the college; and a daughter of Sir Anthony); Miss M. Kyne, Messrs. M. Costello and D. Kennelly (members of the Council of the Pharmaceutical Society of Ireland); M. Tobin, M.P.S.I. and B. Mossieman (representing the foreign students).

## TOPICAL REFLECTIONS

By Xrayser

### Historic Meeting

The historical address of Professor G. E. Trease added still further variety to the varied nature of the offerings at evening meetings at Bloomsbury Square during the current session. The decision to devote one evening to the history of the craft is to be highly commended, and the authority of Professor Trease places the occasion on a very high level. The preparation of such a paper entails enormous patient research and voluminous reading, always with the willingness to learn a little—but not too much—from Autolycus, that "snapper-up of unconsidered trifles." Monastic medicine was prominent in the period treated by the speaker, and, since so much of that involved pharmaceutical techniques, it is not a simple matter to find such a clear distinction as Professor Trease so ably did. Of those in the monastic class perhaps the most famous (and certainly the most legendary) of the period was Michael Scot. His medicine was of the Salerno school, but his magic or hypnotism belonged to himself. He attracted the notice of writers, including Dante, and he figures in Scott's *Lay of the Last Minstrel* as "a wizard of such dreaded fame." The well authenticated account given by Professor Trease of the illness of Edward I at Lanercost Priory differs from another I have read, but it appears that no expense was spared and nothing left undone in the attempt to save the King's life. The unfortunate King may well have wished for release from the medical ministrations, which must have involved Montpellier in heavy, if rewarding, work. I wonder if the prefix "dia—" to some of the drugs, to which the speaker referred (p. 363) is not simply the Greek for "composed of." It occurs in such preparations as diascordium, dialthea cinctum, diachylon plaster and diacodion syrup.

### Three Benefactors

To select three names from a long list of benefactors to mankind in the field of medicine and apply to them the description "incomparable" as did Dr. A. G. Mearns at Glasgow recently (p. 366) was almost certain to lead one of his audience to question an omission. But in devoting himself to the three chosen, the speaker does not appear to have put them on a pedestal above all others. There was no attempt to claim that they were chosen for any other reason than that they were as described, "incomparable benefactors," and no one would dispute their selection on those grounds. Hippocrates was a sound first choice, and it was natural that Dr. Mearns should have followed the Father of Medicine with two who had added lustre to the city of Glasgow—Lister and Macewen. Lister's fame is world-wide and extends beyond the range of those who are professionally interested. Yet Lister himself paid handsome tribute to the skill, as a surgeon, of his father-in-law, James Syme, who worked under the disadvantages which Lister so skilfully overcame. From the killing of infective bacteria to modern asepsis was—as we now see it—a logical step, and Macewen was one of the pioneers. His name, outside of his profession, will never be in the same category as Lister's, but he left a reputation which fully entitles him to his place in Dr. Mearns's trio.

### The Budget

By the time these words are in print we shall know the worst (or the best) of the Chancellor's financial proposals. One grows weary of the prognostications of the Press pundits, but most have made reference to purchase tax in a manner which suggests that they anticipate change. However, the forecasts, like the "giving" of winners on the Turf, tend to range over a field wide enough to permit of what might reasonably be termed "escape clauses." It is not my purpose to enter the lists, particularly as the results will be known before the printer turns his attention to this column, but if the prophecies of the experts are borne out, much work is in store for the editorial staff at Essex Street, for manufacturers, and for the long-suffering retailers, who will be required to learn a range of new prices. Except that the tax has become a manipulative instrument in the hands of Government, we might have hoped for its abolition.

## TRADE NOTES

**Former Size Reintroduced.**—British Schering, Ltd., 229 Kensington High Street, London, W.8, are reintroducing on April 13 the 25-gm. pack of Neutral-donna powder.

**Pack Changes.**—Cortiforte Laboratories, 108 Horseferry Road, London, S.W.1, announce that both packs of Cortabs analgesic tablets have been withdrawn. On April 7 a new pack of a reformulated product became available in a strip packing. It contains 500 tablets and is free of purchase tax.

**Agents for Lecithin.**—Fatoils, Ltd., 91 Bishopsgate, London, E.C.2, have been appointed sole selling agents of Lecithin for Archer-Daniels-Midland Co., New York, U.S.A., largest American producers of soya oil. Messrs. Fatoils are producing under strict specification control plastic and fluid, bleached and unbleached uniform grades of the material.

**"Wholly British."**—Ward, Blenkinsop & Co., Ltd., 37 Queen Square, London, W.C.1, point out that the company and its subsidiary (Harker Stagg, Ltd., Emmott Street, London, E.1), are wholly British-owned and controlled. Neither the company nor its directors are connected with any other company "whose name might indicate such an association."

**New and Improved Label.**—County Laboratories, Ltd., Honeypot Lane, Stanmore, Middlesex, have produced a new and distinctive label for their Brylcreem tubs. The label is in the form of a shield, carries less text and is easier to read. Part of it is printed in silver, and the label also embodies the "Brylcreem crown"—a symbol already featured on packs sold in the United States and Canada.

**Styptic Pencils and Alum Blocks.**—D. F. Penn, Ltd., Alum Works, Alexandra Road, Hounslow, Middlesex, are advertising in "Jim's Inn" on commercial television on May 22 their styptic pencils and alum blocks. The 655 styptic pencil is available in snap shock-proof, unbreakable case, and as a longer pencil in transparent-paper wrapping. The shaving blocks are available in rectangular shape in carton in display outer of one gross; and in cylindrical shape in Bakelite case, 1 doz. to a corrugated box, twelve boxes to an outer container.

**Collapsible Cases for Rail Transport.**—Two new sizes have been introduced in the packing-case hire service operated by British Railways with collapsible cases made by Collico, Ltd., London Road, Barking, Essex. Hitherto two standard sized cases have been available, both in steel or aluminium alloy. Today, a larger and a smaller box have been added to the range. The larger box is manufactured from extruded aluminium-alloy framework with plywood panels and has a capacity of approximately 10 cu. ft. The new small box is available in either steel or aluminium alloy and has a capacity of approximately 1 cu. ft.

**Work Study Courses.**—The School of Time and Motion Study, 29 Cork Street, Piccadilly, London, W.1, offers

courses designed to meet the needs of "smaller" firms with limited resources wishing to teach their managers the principles of work study. The courses "have a strong leavening of practical work, and case studies are made of actual problems on the shop floor." The aim is not to produce fully-fledged work-study engineers, but to enable managements to "streamline" their organisations in accordance with the basic principles of work study. The school was founded in 1951 by John W. Hendry, author of "A Manual of Time and Motion Study."

**Works Visit.**—A party of members of the Edmonton and Tottenham divisions of the St. John Ambulance Brigade visited the Edmonton works of the medical division, British Oxygen Gases, Ltd., recently. They showed special interest in the Stephenson Minuteman resuscitator, also seeing other items of medical and first-aid equipment and a film dealing with the resuscitator. The Minuteman, which weighs 28 lb., is easily carried to the scene of an accident.

**New Kieselguhr Grades.**—Two new grades of German kieselguhr available for specialised filtration applications are distributed by Charles H. Windschuegl, Ltd., 1 Leadenhall Street, London, E.C.3. The grades are "80 special," a high grade with good white colour and large bulk volume within the range 30-90 microns; and "80 quick," a slightly off-white kieselguhr giving a fast filtration rate with medium clarification. Five improved grades of kieselguhr introduced by the company in 1957 have been further improved in colour and bulk density.

**Competition Prize-winners.**—First prize (£100 or a trip to Paris) in a competition organised by Genatosan, Ltd., Loughborough, Leics, went to Mrs. E. M. Chimes, an assistant in the



pharmacy of J. F. Butlin & Son, Leicester. Second prize (£50) was won by Mrs. E. Ewen, an assistant in the pharmacy of Mr. S. D. Ewen, 97 Victoria Road, Dundee. Third prize (£25) was won by Miss K. Williams, an employee of Mr. L. E. Olsen, Belmont Road, Hereford. Fifty other competitors each received a consolation award of £5. The picture shows Mrs. Chimes receiving her £100 cheque from the company's sales director.

## INFORMATION WANTED

The Editor would appreciate information about the following:  
Vinton dog shampoo

**"Nappy" Pins with Baby Powder.**—D. & W. Gibbs, Ltd., Hesketh House, Portman Square, London, W.1, are supplying with each tin of Pears baby powder two free "nappy" pins of special design to prevent the pin from slipping open. The pins, banded to the tin, are given free with each container until April 17.

## Bonus Offers

**BIOMETICA.** LTD., Elstree Way, Boreham Wood, Herts, Bu-to. 5 per cent. on direct orders. April 8 to 30.

**FASSETT & JOHNSON, LTD.**, 86 Clerkwell Road, London, E.C.1. **QUICKIES.** 10 per cent. on 4 doz. or more small, to which larger size in sixes and Quickies deep cleansing cream in dozens may be added for same discount. Till April 30. **FIVE-DAY DEODORANT.** 10 per cent. on 2 doz. or more 5-day sticks, to which small 5-day pads in doz. and large in sixes may be added for same discount. Till April 30. **SPRAY-TAN.** Thirteen to doz. on direct order for 1 doz.; extra 5 per cent. on 2 doz. or more. Till May 31.

## Calls for Tenders

**THE Board of Trade** has issued details concerning tenders sought by various overseas bodies, and an outline is given below of the requirements and closing dates. For fuller information readers should apply, quoting reference, to Export Services Branch, Lacon House, Theobalds Road, London, W.C.1.

**Pharmaceutical Chemicals.** Chairman, The Tender Board, Ministry of Health, P.O. Box No. 500, Colombo, Ceylon (E.S.B. 6933/59, May 26).

**Pharmaceuticals.** 50 items. Ministere du Congo Belge et du Ruanda-Urundi, Brussels (E.S.B. 7765/59, April 24).

**Soap, common and toilet.** Controller of Stores, Sudan Railways, Atbara (E.S.B. 7776/59, May 7).

**Surgical Instruments and dressings.** 820 lots. Government Purchasing Commission, Lourenco Marques, Portuguese East Africa (E.S.B. 6317/59, April 22).

## STAFF DINNER

### Company now a "grandfather"

**THE** annual dinner of Macarthy's, Ltd., Romford, and associated companies was held in London on April 2, the company's chairman (Mr. E. E. Farrant, M.P.S.) presiding. In a toast to the staff of the companies, Mr. Farrant offered his congratulations to them and to the management on the continued expansion of the business. During the year, he said, a new subsidiary, Romford Laboratories, Ltd., had been established, and still further expansion was in prospect. New staff was being engaged at a rapid rate, and he felt he could assure the newcomers that association with the senior members of the company would prove an excellent training. Responding for the staff, Mr. R. W. Shilling (Macarthy's (Wholesale Chemists), Ltd.) said that, since his own company was a lusty offspring of Macarthy's, Ltd., he could now congratulate the parent company on becoming a grandfather. Over 300 were present at the dinner, which was followed by a dance. Mr. J. D. Mackenzie acted as M.C.

## NEW PRODUCTS AND PACKS

**A Treatment for Acne.**—Denver Laboratories, Ltd., 12 Carlisle Road, London, N.W.9, are marketing a new product Brasivol, claimed to offer a "new concept" in the treatment of acne—"superficial graded abrasion"—by keeping the skin dry and minutely desquamated. Brasivol is available in fine, medium and coarse grades, in a jar providing approximately one month's treatment.

**An Orally Effective Diuretic.**—Glaxo Laboratories, Ltd., Greenford, Middlesex, announce the introduction of Naclex, a powerful new diuretic that is understood to be fully effective by oral administration and to be useful in conditions of all degrees of severity. Naclex is available as uncoated scored tablets each containing 50 mgm. of hydroflumethiazide. The packs are bottles of twenty-five, 100 and 500.

**Hypotensive Agent.**—Roussel Laboratories, Ltd., 847 Harrow Road, London, N.W.10, announce the introduction of a new hypotensive agent, Decaserpyl (10-methoxy-deserpipine), an isomer of reserpine stated to have the full hypotensive action of reserpine without its effects upon the central nervous system. Decaserpyl is therefore claimed a safe antihypertensive drug that does not cause the nausea and drowsiness often associated with such agents. It is presented as 5-mgm. tablets in bottles of twenty and 100.

**PAS Made More Acceptable.**—Sodium PAS, still one of the major tuberculostatic drugs, is the basis of Pasade, the latest addition to the range of anti-tuberculosis drugs marketed by Smith & Nephew, Ltd., Bessemer Road, Welwyn Garden City, Herts. Pasade sodium-PAS adequate granules are designed to render sodium PAS more acceptable to patients, the special formulation of the product being based on the principle that fats resist digestion in the stomach. In Pasade granules the unpleasant-tasting and irritant sodium PAS is intimately mixed with a low-melting-point fat which, when swallowed, melts, allowing the granules to disintegrate. The sensitive stomach lining is thus protected against irritation. Subsequent emulsification of the fat within the intestine ensures unimpeded absorption of the PAS, leading to rapid and prolonged blood and tissue levels. Pasade granules contain the equivalent of 96.4 per cent. of sodium aminosalicylate, B.P. They are packed in polythene-lined tins of 500 gm. and 1 kilo.

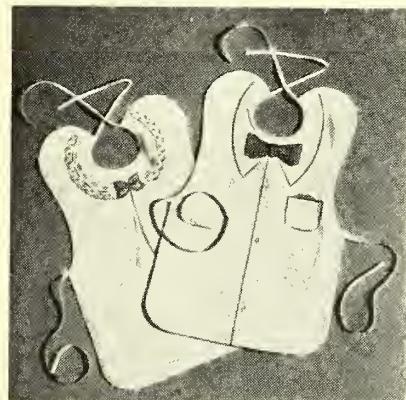
**Appetite Control.**—Riker Laboratories, Ltd., Loughborough, Leics, are marketing a new speciality, Durophet, for appetite control without over-stimulation. Durophet is claimed to have an effect lasting 12-14 hours from a single capsule. It is a new formulation containing "balanced" amounts of dextro and laevo amphetamine, and giving "a more potent slimming action by increased appetite-suppressing effect, decreased stimulant effect." Durophet is available in strengths of 20, 12½ and 7½ mgm., each in container of thirty capsules.



**DISPLAY OUTER:** Pack in which the new Elastoplast pocket strips are being issued by the manufacturers, Smith & Nephew, Ltd., Welwyn Garden City, Herts.

**Vacuum Flask Improvements.**—Feature of the 1959 models of the Thermos vacuum flasks is an improved leakproof polythene stopper with drip-free polythene pourer lip. Manufacturers are Thermos, Ltd., Seymour Road, London, E.10.

**Plastic "Feeder."**—The Little Fisherman plastic trap bib of Kleinert Rubber Co., Walpole House, New Bond



Street, London, W.1, features a gay design of a bear fishing in a transparent plastic river "trap."

**Roll-on Antiperspirant.**—Thomas Christy & Co., Ltd., Aldershot, Hants, are distributing a new roll-on anti-perspirant in the Yaxa range. The product brings to five the number of personal freshness preparations in the Yaxa series (stick and Cologne deodorants, antiperspirant spray, perfumed body-powder, and now roll-on antiperspirant). The new product is issued in an unbreakable polythene squeeze bottle. It is easy to apply, and dries on the skin rapidly without leaving any sticky residue. Its use is claimed to

give twenty-four-hour protection from each application.



**FRUITY FLAVoured:** The new Noddy toothpaste for children by Cullifords of Chelsea (see *C. & D.*, March 21, p. 307). The screw cap is in colour similar to that worn by the well-known children's character Noddy. The paste has a generalised fruity flavour because a market research showed no preference for a particular type.

**"High-fashion" Lip Colour.**—Goya, Ltd., 161 New Bond Street, London, W.1, are marketing a new high-fashion lip colour, "pink tangerine"—"to cut a dash with the fiery yellows and oranges and the favourite Paris shade, Chartreuse green, which are being worn this spring." Pink tangerine is described as a sophisticated orange with pink tones.

**Roll-on Mascara.**—Tattoo roll-on mascara, a new product, has the qualities of the old-fashioned cake and cream mascaras plus angled channels for rolling the lashes upwards, and of different sizes to allow of thick or thin application. The channels fill automatically with the odourless, waterproof mascara, which is available in four different colours. The distributors are Fassett & Johnson, Ltd., 86 Clerkenwell Road, London, E.C.1.



**NEW DRESSINGS PACKS:** Band-aid sterilised elastic-dressing strip "dispenser" (above) and pack of ten Band-aid individually wrapped dressings introduced by Johnson & Johnson (Gt. Britain), Ltd., Slough, Bucks (see *C. & D.*, April 4, p. 359).

**Perfumed Roll-on Antiperspirant.**—A new perfumed Mum Rollette manufactured by Bristol-Myers Co., Ltd., is now available from the sole distributors: Scott & Bowne, Ltd., 50 Upper Brook Street, London, W.1. The product is presented in a glass bottle with pale pink translucent cap. The redesigned black-and-gold foil label



clearly illustrates the perfumed addition and carries a set of simple instructions for application. The Rollette roll-on applicator contains a smooth pink lotion for daily use on sensitive skins. It does not damage or harm clothes. Two attractive matching display outers in black, pink and white are available. A single Rollette outer frames the product. A unit outer contains six Rolllettes for counter display.

**"French-formula" Lipsticks.**—Lipsticks produced by Elizabeth Arden, Ltd., 25 Old Bond Street, London, W.1, in "the new French formula" are claimed to have extra creaminess, firmness without hardness, greater lustre and long-lasting colour. Each lipstick is in the company's exclusive "click" change case and there are a harmonising nail lacquer and cream rouge. Since the beginning of April all Elizabeth Arden lipsticks on sale have been in the new formula.

**All-meat Cat Food.**—Whiskas, a new all-meat tinned cat food manufactured by Petfoods, Ltd., Melton Mowbray, Leics, is being extensively advertised on television and in the Press. Whiskas



is made up of meat and liver (cut into pieces of a size convenient for the cat to deal with) suspended in gravy enriched with the vitamin B, and with another member of the vitamin-B group considered specially important in cat nutrition. Whiskas supplies high protein with moderate fat and negligible carbohydrates. The cans are sent out seventy-two to a case.

**To Ease Tight Shoes.**—A new liquid shoe stretch, Shoe-eze, marketed by H. & L. Marshall & Sons, Ltd., 302 Latimer Road, London, W.10, is claimed to make tight shoes fit in a matter of minutes if the product, a clear liquid, is dabbed freely over the tight spots and the shoes allowed to mould

to the shape of the foot. The product is claimed harmless to stockings and skin and suitable for all types of leather. It is issued in a point-of-sale display box of 1 doz. satchels. One bottle is sufficient for a number of pairs of shoes. It keeps indefinitely.

## TELEVISION

Programme details are given to enable chemists to put in linking-up displays if they wish. Figures in the columns represent number of appearances of the product during the week.

April 19-25	London					
	Midland	North	Scotland	Wales	South	N.E.
Alka-Seltzer	2	1	1	—	1	—
Amami wave set	—	3	—	—	—	—
Anadin	4	3	3	3	3	4
Andrews liver salt	1	1	1	1	2	3
Anne French	—	1	—	—	—	—
Askin	—	—	—	12	—	—
Beecham's pills	4	2	2	3	3	3
Beecham's powders	3	3	3	3	3	3
Bisodol	—	—	1	—	—	—
Bristow's shampoo	3	3	3	—	—	—
Bronco toilet rolls	—	3	—	—	—	—
Camay soap	2	2	2	2	4	2
Cephos	—	—	—	3	—	—
Christy's lanoline face pack	2	2	2	2	2	2
Cooper's aerosols	3	2	2	3	3	2
Cutex lipstick	3	5	3	—	—	—
Daaskin	1	1	—	—	—	—
Dylon dyes	—	—	2	—	—	—
Euthymol tooth-paste	1	2	1	—	—	—

Formula 21	—	—	2	—	—	—
Gibbs' S.R. tooth-paste	—	—	—	—	4	—
Gillette razors and blades	1	1	1	1	1	1
Harlene hair tonic	—	—	1	—	—	—
Ibcol	—	—	2	2	2	2
Imperial Leather soap	3	4	4	3	—	3
Lanospray	—	2	1	1	1	—
Lucozade	—	—	1	—	1	1
Maclean's tooth-paste	4	3	3	4	4	3
Marigold house gloves	—	1	—	—	—	—
Max Factor preparations	1	1	2	1	1	1
Milk of Magnesia tablets	5	6	—	—	—	—
Milk of Magnesia	—	1	1	1	1	1
Milpar	—	—	3	—	—	—
Phillips' tooth-paste	—	1	—	2	—	—
Phyllosan	—	1	2	3	1	3
PLJ	—	—	2	—	—	—
Pond's beauty products	3	3	3	3	3	3
Ramer sponges	—	—	—	1	—	—
Remington Rollectric	4	3	2	4	5	3
Rennies	—	3	3	4	2	2
Ribena	—	2	2	1	2	2
Rinstead pastilles	—	1	—	—	1	1
Robinade	—	3	3	—	—	—
Robinson's lemon barley water	—	3	3	3	2	3
Setlers	—	—	—	—	3	—
Silvikrin hair cream	2	3	3	3	3	3
Spin-gee perfumed	—	1	—	—	1	—
Sun-Orange Quosh	3	3	3	3	2	3
Suregrap house gloves	2	2	2	2	2	2
Tankee lipstick	4	4	4	4	4	4
Tru-gel	—	3	3	2	2	2
Valderma	—	2	—	2	2	—
Valrosa	—	—	—	—	1	—
Vitapointe	—	2	2	—	—	—
Vosene	—	4	3	4	5	4
Yeast-Vite	—	2	1	—	—	—
Zoflora	—	—	—	—	1	—

## A WHOLESALER'S COMING OF AGE

### Twenty-one years of John Knox (Stoke-on-Trent), Ltd.

TO mark the completion of twenty-one years of activity as manufacturing and wholesale chemists in Stoke-on-Trent, Staffs, John Knox (Stoke-on-Trent), Ltd., produced a handsome 20-p. illustrated booklet in two colours outlining the "Jaynox Story," copies of which were sent out in March.

The booklet describes the endeavours of the company to carry out "the three main tasks of the wholesaler: assembling merchandise from hundreds of manufacturers for delivery to pharmacists and hospitals in composite orders; breaking bulk; and maintaining stocks in appropriate quantities so that the retailer does not have to overstock with slow-moving items and can restock fast-moving items easily." The last-named function became particularly important with the advent of the new specific and expensive drugs. The founder (Mr. C. Harold Coxon, M.P.S., now chairman and managing director) appreciated that an opportunity existed for a pharmaceutical wholesaler with an insight into the requirements of the average pharmacist. For a suitable name for the company the board went back to Dr. Knox's dry mixture, a proprietary medicine that had been acquired for a very nominal sum. Premises were obtained in Cannon Street, Hanley, and stocked as well as limited resources would allow. On May 1, 1937, John Knox (Stoke-on-Trent), Ltd., opened with a staff of eight, "one small van, one errand boy's bicycle, a few vague promises and bags of enthusiasm."

From the outset the accent was on service and it was considered almost a crime to fail to supply an item that was normally stocked. Failure to deliver on time was "unthinkable."

During the 1939-45 war many of the large distributing houses found it impossible to continue normal services and in some districts road deliveries ceased altogether. As a result, the Jaynox service began to attract attention and vehicles of all sorts were pressed into service. In 1944 the present premises in King Street, Fenton, were purchased. The building comprised three stories forming two sides of a large square site occupying an acre, but was occupied as a food depôt. Conversion to a public company took place on April 14, 1947. Alterations to the new premises were also completed in that year, and the transfer was effected. After a period of settling down the advantages of greater space and better working conditions were reflected in an ever-increasing volume of business.

A mechanical handling system was introduced, and vans were soon delivering regularly to areas much wider afield. A depôt was set up in Blackpool and a more comprehensive service offered to pharmacists in the Fylde area. The increasing demands of the Health Service for ethical proprietaries created a need for speedier distribution, necessitating new methods in handling and administration. A punched card system was introduced, principally for the mechanical production of invoices. The sundries house of Heath Bros. & Sons, Ltd., Salford, was acquired. In 1958 an Ipsophone automatic telephone system (whereby messages and orders are received and automatically recorded at any time of the day or night) was installed.

The company is now a thriving concern of four branches and with some hundreds of employees.

## COMPANY NEWS

Previous year's figures in parentheses

**GILLETTE INDUSTRIES, LTD.**—Mr. Willis C. Cooper has been appointed chairman of the company.

**J. BIBBY & SONS, LTD.**—Mr. Henry Mason Bibby (vice-chairman) has been appointed managing director of the company.

**A. WANDER, LTD.**—Mr. C. W. Picard, M.Sc., Ph.D., F.R.I.C., has been appointed director of research and development in succession to Mr. F. Wokes, B.Sc., Ph.D., F.R.I.C., who retired on March 31.

**GRIFFITHS HUGHES PROPRIETARIES, LTD.**—Mr. Cecil B. Green continues as chairman but has relinquished his joint managing directorship Mr. Osman Peter Marland taking over as sole managing director.

**TAYLORS DRUG CO., LTD.**—Profit, fifty-three weeks ended January 3, £268,248 (£281,272), less U.K. tax £137,957 (£131,287), net profit £130,291 (£149,985). Dividend on Ordinary £117,300 (£131,100). Increase in carry-forward £1,491 (£7,385).

**TAYLORS (CASH CHEMISTS) LONDON, LTD.**—Profit, fifty-three weeks ended January 3, £209,238 (£190,751), less tax £108,481 (£92,236), net profit £100,757 (£98,415). Dividends on Preferred Ordinary £61,238 (same) and on Deferred Ordinary £20,412 (same). Increase in carry-forward £6,169 (£3,827).

**TAYLORS (CASH CHEMISTS) MIDLAND, LTD.**—Profit, fifty-three weeks, ended January 3, £190,708 (£168,694), less U.K. tax £95,724 (78,493), net profit £94,984 (£90,201). Dividends on Ordinary of 12½ per cent. £3,594 (same), and on Deferred Ordinary £77,050 (same). Increase in carry-forward £9,359 (£4,576).

**TAYLORS (CASH CHEMISTS) TRUST, LTD.**—Group profit, fifty-three weeks ended January 3, £500,594 (£486,374), less U.K. tax £252,602 (£226,647), net profit £247,992 (£259,727), attributable to parent £219,352 (£231,477), special credits nil (£2,140). Dividends on Preferred Ordinary of 12½ per cent. £31,625 (same) and on Deferred Ordinary £161,000 (£172,500). Increase in carry-forward £1,453 (£2,708).

**TIMOTHY WHITES & TAYLORS, LTD.**—Group trading profit and sundry income expanded from £1,745,362 in 1957 to £1,859,573 in the fifty-three weeks ended January 3, and the dividend is raised from 16½ per cent. to 20 per cent. with a final of 13½ per cent. (10 per cent.). After £395,102 (£361,850) for depreciation, debenture interest, etc., and £815,928 (£792,835) for tax, there is a net profit of £648,543 (£590,677). To the £602,841 (£544,858) attributable to the parent is added £25,000 (£6,500) unrequired tax and £116,000 transferred from stock-in-trade reserve, being the approximate amount of 1958 purchase tax reductions. A year ago £25,522 was added from subsidiary reserves. The Ordinary dividend absorbs £260,709 (£211,826).

General reserve is increased by £250,000 (£211,522) and development reserve by £125,000 (£50,000).

**YARDLEY & CO., LTD.**—A final dividend of 35 per cent. brings the 1958 total to 45 per cent. on the £1,204,500 combined Ordinary capital (37½ per cent. for the year). Group profits contracted from £1,439,054 to £1,260,146 but due to a reduced tax charge, the net balance is higher at £571,099 (£551,594).

**LEWIS & BURROWS, LTD.**—Group net profit, year ended September 30, 1958, £9,012 (£13,725), after tax of £12,595 (£13,775). Add tax over-provision previous years £2,000 (nil). Written off goodwill nil (£1,662), to general reserve £1,863 (£3,000), other reserves (nil) (£1,000). Interim dividend of 10 per cent. already paid and no further dividend recommended (no dividend previous year but special cash distribution of 25 per cent. not subject to tax). Reductions in purchase tax in April 1958, adversely affected profits. They had been anticipated and stocks kept to a minimum but losses estimated at £9,000 were incurred. Sales have been, however, more than maintained and results are regarded as satisfactory.

**SMITH & NEPHEW ASSOCIATED COMPANIES, LTD.**—Mr. G. E. Leavey (chairman) reports that with one exception all branches of the group's activities are showing some increase and the board are reasonably confident that the results for 1959 will not be inferior to those for 1958. He points out that as many of the group's end-products are manufactured from a cotton base there may well be some vulnerability in that respect, but in view of the anticipated increase in cotton production in the U.S.S.R. and China he feels that the present high prices may not be maintained permanently. The group's total overseas business shows an increase of nearly 14 per cent., but with the establishment of manufacturing facilities in South Africa its export

sales to the Commonwealth companies will probably diminish as time goes on. A small stake has been secured in India but it was not expected that the new company will be a profitable investment for some time yet.

**GLAXO LABORATORIES, LTD.**—Group net profit declined by 12 per cent. to £1,178,000 in the six months to December 31, 1958, compared with the corresponding period of 1957. The interim dividend recommended is 5½ per cent. (total for the year to June 30, 1958, was equivalent to 11½ per cent. on the Ordinary capital as increased by a one-for-two scrip issue). The directors report that the decline in profit reflects the highly competitive conditions existing in many markets. There is little indication of improvement in trading conditions, but the introduction of new products should result in some increase in turnover and profitability during the second half of the current year's trading, they add. Group turnover was 3 per cent. less than the corresponding period of the previous financial year and 6 per cent. less than the six months ended June 30, 1958. Consolidated results for the period include for the first time those of Allen & Hanburys, Ltd., and to provide comparable figures for the same period a year ago, figures for Allen & Hanburys have been added. Trading profits, £2,418,000 (£2,782,000); estimated taxation, 1,397,000 (£1,495,000). Net balance attributable to Messrs. Glaxo £1,178,000 (£1,341,000).

### Voluntary Liquidations

**C. J. TAYLOR CHEMICALS (CARLISLE), LTD.**, manufacturing chemists. [R.O.] 2 Chatsworth Square, Carlisle, Cumberland. Liquidator: Charles A. Huntington, Eric S. Browne & Co., 41 North John Street, Liverpool, 2.

**C. J. TAYLOR'S EMBEX, LTD.**, and **VILLA LABORATORIES, LTD.**, manufacturing chemists. [R.O.] 78 Boundary Lane, Liverpool. Liquidator: Charles A. Huntington, Eric S. Browne & Co., 41 North John Street, Liverpool, 2.

### TAX REDUCTIONS IN BUDGET

#### Purchase tax down by one-sixth

THE most important changes proposed by the Chancellor of the Exchequer in the Budget on April 7 that affect retail pharmacy were the reductions in purchase tax rates. The 60 per cent. rate of tax was reduced to 50 per cent., the 30 per cent. to 25 per cent. and the 15 per cent. to 12½ per cent. The 5 per cent. rate was unchanged.

In the case of sales by registered wholesalers to retailers the new rates applied to goods actually dispatched on or after April 8 irrespective of the date when the goods were ordered or invoiced. Particulars are given in Notice No. 78P by the Customs and Excise Commissioners.

The Chancellor proposed to replace the Liquor Licence Duties which are mainly based on the annual value of the licensed premises by a system of fixed rates of duty applicable to licences dated after April 7. Dealers'

licences for spirits of wine sold by wholesale or manufacturing chemists for medicinal purposes are reduced from £10 to £2. Retail dealers' wine licences which formerly cost £10 10s. now cost £5.

Investment allowances for capital expenditure are restored for industry. For the main classes of assets the rates will be 20 per cent. for new plant and machinery and 10 per cent. for expenditure on the construction of industrial buildings. Expenditure on new plant and machinery will also be eligible for a 10 per cent. initial allowance and the expenditure on the construction of new industrial buildings for a 5 per cent. initial allowance. Capital expenditure on ordinary motor cars and on second-hand plant and machinery will not qualify for the investment allowance but continue to qualify for the present initial allowance.

## NEW COMPANIES

P.C. = Private Company; R.O. = Registered Office

H. TILSLEY, LTD. (P.C.)—Capital £3,000. To carry on the business of chemists, druggists, etc. Directors: Ernest Fell, M.P.S., Florence E. Fell, Herbert Tilsley and Doris V. Tilsley. R.O.: 486 Fulwood Road, Sheffield, 10.

D. E. FISHER (CHEMISTS), LTD. (P.C.)—Capital £3,000. To carry on the business of chemists, etc. Directors: Derek E. Fisher, M.P.S., and Olive A. Court. R.O.: 75 London Road, Neath.

JOHNSTON'S PHARMACY, LTD. (P.C.)—Registered in Dublin. Capital £8,000. To acquire the business of a chemist carried on by Stanley Wilson, M.P.S., at 21 Ranelagh, Dublin. Directors: Stanley Wilson and Eric Wilson.

R. H. FERRIS, LTD. (P.C.)—Capital £3,000. To carry on the business of wholesale and retail chemists, druggists and opticians, etc. Directors: Alfred L. Gardiner, M.P.S., and Percy J. Nottage. R.O.: 450 New Cross Road, London, S.E.14.

MILLS INDUSTRIAL SERVICES, LTD. (P.C.)—Capital £2,000. To acquire the business of David White (Chemists), Ltd., etc. Directors: George H. Jennings, Lawrence Mahoney, M.P.S., and Maureen Jennings. R.O.: 37 High Street, Keynsham.

R. V. MAY (CHEMIST), LTD. (P.C.)—Capital £500. To carry on the business of manufacturing and general chemists, etc. Directors: Robert V. May, M.P.S., and Marjorie E. May. R.O.: 24 College Street, Burnham-on-Sea, Somerset.

J. H. P. GREENWOOD (CHEMISTS), LTD. (P.C.)—Capital £100. To carry on the business of chemists, druggists, etc. Directors: Jesse H. P. Greenwood, M.P.S., and Gwendoline A. Greenwood. R.O.: 23 Barrett Road, Birkdale, Southport.

W. TOMLINSON (MORECAMBE), LTD. (P.C.)—Capital £3,000. To carry on the business of manufacturing and general chemists, etc. Directors: James D. Casserly, M.P.S., and Ronald Broomhead. R.O.: 233 Westminster Road, Morecambe and Heysham.

ROBERT HOWDEN (WHOLESALE), LTD. (P.C.)—Capital £200. To carry on the business of chemists, etc. Directors: Cyril F. Castle, M.P.S., and Eugene P. Castle (directors, Robert Howden, Ltd.), Alfred E. Marsden and Gertrude Marsden. R.O.: 11 Fen-church Street, London, E.C.3.

BRYCE & RUMPF, LTD. (P.C.)—Registered in Edinburgh. Capital £20,000. To carry on the business of chemical brokers and merchants, manufacturing chemists, etc. Subscribers: M. R. Tapping and R. S. MacAuley, solicitor, 113 St. Vincent Street, Glasgow. The first directors are not named.

KNIGHT & SON (CHEMISTS), LTD. (P.C.)—Capital £100. To acquire the business of a retail chemist carried on by Alfred H. Knight at Wincanton, Somerset. Directors: Alfred H. Knight, M.P.S., and William B. Rhodes, M.P.S. R.O.: 13 Market Place, Wincanton.

JOHN F. H. PRICE (CHEMISTS), LTD. (P.C.)—Capital £2,000. To carry

on the business of manufacturing and general chemists, etc. Subscribers: John F. H. Price, M.P.S., and David B. Austin. John F. H. Price is permanent director. R.O.: 2 The Green, Whitton Estate, Lowestoft.

ROBY LABORATORIES, LTD. (P.C.)—Capital £500. To carry on the business of technicians to the dental profession; manufacturing chemists, chemists' sundriesmen, etc. Directors: Ivan H. Long, Christine L. Long, Alan G. Green and Joyce Green. R.O.: 24 Roby Road, Huyton, Liverpool.

HARRISON'S PHARMACY, LTD. (P.C.)—Capital £100. To carry on the business of wholesale and retail chemists and druggists, etc. Subscribers: Raymond A. Broome, M.P.S., and Ernest W. Longhurst. Raymond A. Broome is the first director. R.O.: 217 Hoe Street, London, E.17.

H. C. LEWIS (ST. CLEARS), LTD. (P.C.)—Capital £1,000. To carry on the business of manufacturers of and dealers in veterinary medicines and instruments, etc. Directors: Hywel C. Lewis, M.P.S., and Peter H. Lewis. R.O.: Medical Hall, St. Clears, Carmarthen.

COUNTY PHARMACY, LTD. (P.C.)—Registered in Dublin. Capital £100. To carry on the business of chemists, druggists, oil and colourmen, etc. Subscribers: Francis Patrick Galvin and J. Killian Boland, solicitors, 36

South Mall, Cork. The first directors are not named.

STEPHEN HARRIS & SON, LTD. (P.C.)—Capital £5,000. To acquire the business of chemists carried on at 25 High Street, Droitwich, Wores, as "Stephen Harris & Son," etc. Directors: Percy C. Harris, M.P.S., and Robert E. Harris. R.O.: 25 High Street, Droitwich, Worcestershire.

POOPIN, LTD. (P.C.)—Capital £100. To engage in research in pharmaceutical, surgical, cosmetic, and packaging problems, etc. Directors: Dr. John P. Dickson, M.A., M.B., B.Ch., Chalerm Sri Dickson, Madeline Mann, John K. Melling and Claude Dutton. R.O.: 28 Norfolk Street, London, W.C.2.

CHEMICAL EXPERTS, LTD. (P.C.)—Capital £100. To carry on the business of chemical and pharmaceutical research experts, manufacturers of and dealers in drugs, medicines, disinfectants. The first directors are not named. Solicitors: Clifford-Turner & Co., 11 Old Jewry, London, E.C.2.

FROST SOUTHWICK FARM SERVICES, LTD. (P.C.)—Capital £100. To carry on the business of manufacturing, wholesale, retail and agricultural chemists and druggists, etc. Directors: Edith L. Southwick, Margaret A. A. Southwick and Robert C. Southwick, M.P.S. R.O.: 14 Church Street, Monmouth.

## INQUESTS

**Pharmacy Student Took Cyanide.**—Before throwing himself 30 ft. from a window at his home a pharmacy student took cyanide. The poison was the main cause of death said the St. Pancras coroner at an inquest on Robert Miller, Armitage Road, Golders Green. Dr. Francis Camps said he had never seen injuries so slight caused in a fall from such a height. The coroner, recording a verdict of "Killed himself," said it was not clear why Miller had taken his own life.

**Child Finds "Unnoticed" Tablets.**—A bottle of antihistamine tablets that had lain unnoticed in a cupboard for five years at the home of Mr. and Mrs. Trevor Butler, New Bolsover, Derbyshire, caused the death of their eighteen-month-old son, it was stated at a Chesterfield inquest recently. Dr. Maurice Lecutier, a pathologist, said the boy died shortly after being admitted to hospital. The coroner commented: "This is a tragic case. It was a pure accident and Mrs. Butler could not have anticipated that the child would get the tablets. I do not think the parents can blame themselves in any way." A verdict of death by misadventure was recorded.

**Tablespoonful instead of Teaspoonful.**—At the Havant inquest on a fifteen-month-old baby boy recently, it was stated that a dispenser at a local chemist's wrote "One tablespoonful to be taken twice daily" on a drug label instead of "one teaspoonful." After medical evidence had been given to the effect that death was due to a sudden attack of laryngo-tracheo bronchitis, the coroner ruled that the mistake had nothing to do with the baby's death. "If one learns anything from this case,"

said the coroner (Mr. R. N. Sherwell), "it is the necessity for the utmost care to be taken by dispensers in correctly making up prescriptions. As it happens, in this case, I am satisfied the mistake had no bearing on this child's death—but, in other cases, an overdose could have had a very serious effect." The doctor had prescribed syrup of Atarax, 5 mils to be taken twice daily. He agreed with the coroner that a tablespoonful would not have caused death.

**Confusion over Dosage.**—Confusion over a dispensing "squiggle" killed a woman patient by giving her a four-times overdose of sleeping mixture, an inquiry at Glasgow sheriff's court revealed on March 19. Ward Sister Margaret Steel said she had written as the symbol for half an ounce the two letters "ss," with dots above them. She had since been told the letters should not be dotted. Mrs. Lillias Brock, night nurse, misread the "ss" symbol for the one representing two ounces and she poured out that quantity of the drug. The woman died the next day. Sister Steel told the inquiry she had always written the half-ounce symbol with two dots above it. But when she took the treatment sheets to the medical superintendent's office after the incident, "I foolishly rubbed out the dosage and wrote in figures in place of the symbols." Professor Andrew Allison who conducted the post-mortem told the inquiry that the mixture given contained "bromide, chloral hydrate and opium." Dr. George Johnston Addis (medical registrar, Southern General Hospital, Glasgow, where the patient was) said the symbols were no longer used at the hospital. The sheriff directed the jury to return a formal verdict.

## BIRTHS

POWELL.—On April 2, to Yvonne, wife of T. S. E. Powell, F.P.S. (secretary of the Reigate, Redhill and District Branch of the Pharmaceutical Society), Galen, Crosslands Road, Redhill, Surrey, a son, Guy Storer.

## MARRIAGES

OTWAY—SANDERS.—At St. John's Church, Lowestoft, Suffolk, on April 2, Terence Otway, Auckland, New Zealand, to Juliet Mary Sanders, daughter of Mr. W. H. B. Sanders, M.P.S. Mr. Sanders is currently the mayor of Lowestoft.

REID—GRAHAM.—At Wick Old Parish Church, Caithness, on March 27, Harold Campbell Reid, Ph.C., only son of the late Mr. H. B. Reid, M.P.S., to Maureen Isobel Graham, Fernlea, Northcote Street, Wick.

## DEATHS

BRACE.—On March 22, Mr. William Ivor Brace, M.P.S., 15 Leigh Road, Wimborne, Dorset. Mr. Brace qualified in 1934.

COHEN.—On March 21, Mr. Julius Cohen, M.P.S., 83 North Road, Southport, Lancs. Mr. Cohen qualified in 1915.

JONES.—On March 31, Mr. William Ivor Jones, M.P.S., 45 Somerford Road, Cirencester, Glos, aged seventy-two. Mr. Jones opened the branch of Timothy Whites & Taylors, Ltd., at Cirencester in 1931 and remained as manager until he retired in 1950. After a serious illness he returned to pharmacy in 1952 with G. Horton, 7 Market Place, Cirencester, for whom he continued to work until as recently as December 1958.

KIRKUP.—Recently, Mr. David Walter Kirkup, M.P.S., St. Margaret's, East Park Road, Scalby, Scarborough, Yorks. Mr. Kirkup qualified in 1926.

LIDDLE.—Recently, Mr. Thomas Martin Liddle, M.P.S., 51 Chesterfield Road, Leicester. Mr. Liddle was formerly a territorial general manager for Boots, Ltd., and in charge of a number of districts. He retired in 1929 and settled in Leicester in 1940. At one time he was for a number of years a member of Bridlington town council.

MAPEI.—Recently, Mr. Luigi Enrico Mapei, M.P.S., 34 Village Road, Bromborough, Ches. Mr. Mapei qualified in 1905.

MELLOR.—On March 22, Mr. William Ernest Mellor, M.P.S., 25 Highbury Park, London, N.5. Mr. Mellor qualified in 1912.

SAWYER.—Recently, Mr. Albert Ernest Sawyer, M.P.S., 100 High Street, Southwold, Suffolk. After being apprenticed to the late Mr. H. Rollett, of Wrentham, Mr. Sawyer qualified in 1903. He worked at Bristol, Preston and Sevenoaks before taking over the practice of the late Mr. R. P. Critten at Southwold in 1906. Mr. Sawyer was closely associated with local activities, including the British Red Cross Society and the Boy Scout movement, and a Freemason of long standing. He is sur-

vived by a son and daughter. His wife died in 1956.

SMITH.—Suddenly, at Parkview, 81 Templeogue Road, Dublin, on April 3, Mr. Samuel Townley Smith, M.P.S.I. Mr. Smith qualified in 1917.

## LEGAL REPORTS

### Undertaking "Under Seal"

M. F. DAVIES and B. F. Davies, trading as M. & B. Davies, Ormskirk, Lancs, who had been selling at cut prices the goods of Johnson & Johnson (Gt. Britain), Ltd., Slough, Bucks, have given that company an undertaking under seal that they will not in future resell the company's goods at prices below those appearing in the company's current retail price lists. Messrs. Davies further undertake to bring the undertaking to the notice of any proposed successor or assignee and to make it binding upon him or them. The Proprietary Articles Trade Association assisted Messrs. Johnson & Johnson in securing the undertaking.

### A Youth's Theft of Drugs

A REMAND charge against two youths, David Khan, 64 Water Lane, Brixton, and Victor Frank Davies, 47 Rockham House, Roupell Park Estate, London, S.W.2, of possessing a bottle of white powder suspected stolen or unlawfully obtained, was withdrawn at Old Street, London, magistrates' court on March 31. Khan, who pleaded guilty to two new charges, was discharged conditionally for twelve months on payment of £6 costs. The fresh charges against Khan were of possessing gr. 34 of cocaine hydrochloride and gr. 35 of morphine hydrochloride without lawful authority; and of stealing the drugs, the property of John Edward Plant, M.P.S., 41 Tulse Hill, S.W.2, his former employer. A detective said that on March 12 Khan and Davies were seen acting rather suspiciously in City Road, Shoreditch, and police officers took them to the police station. In Khan's possession was the cocaine; the morphine was found at his house. Subsequently Khan volunteered an explanation. In a statement he said that he had worked for a chemist in Tulse Hill as a dispensing assistant and, unbeknown to the chemist, had gone to the Dangerous Drugs cupboard and had taken the morphine and cocaine. He had taken it only for experimental purposes; he had always had a flair for chemistry. The magistrate asked if a chemist did not have to keep an account of what had gone from his cupboard. The sergeant: "Yes, sir. That is a matter that will be reported to the Home Office." Addressing Khan the magistrate said: "This case to start with looked like a dreadful type of case of you being concerned with drugs. That aspect having gone I find that you and others are rather apt to think that nothing wrong is left to this case because it is no longer a drugs case, but only a case of a silly boy, anxious for experiments with drugs he did not fully understand were 'red hot.' What I want you to appreciate is that stealing from your employer or from anyone else is a dishonourable thing to do. When you took this stuff you must have known that your employer was being put in

an extremely difficult position." Khan: "At the time I didn't know that." The magistrate: "I am satisfied that you must have known the sort of danger that you were letting your employer in for by taking stuff from a cupboard that he was supposed to have kept under lock and key. Khan had the last word: "I took the drugs when the chemist was not looking" he said. "He does normally keep it under lock and key."

## BUSINESS CHANGES

MOLYNEUX ET CIE (DESIGNS AND PERFUMES), LTD., have removed to 63 Grosvenor Street, London, W.1.

THE business of Rouse of Wigmore Street, Ltd., formerly conducted from 12 Wigmore Street, London, W.1, has been acquired by Gale, Baiss & Co., Ltd., Ilderton Road, London, S.E.15. The retail department has been closed, following the non-renewal of the Wigmore Street lease, but the business in medical specialities is being conducted from Ilderton Road.

MACARTHYS (WHOLESALE CHEMISTS), LTD., are opening a new distribution centre at Willesden, London, N.W.10, on April 13. The dépôt will serve customers in Hertfordshire, Middlesex and North-west London. The premises are under the management of Mr. Alan Wardell, M.P.S., and will be open from 8.30 a.m. to 5.30 p.m. on weekdays and from 8.30 a.m. to 12.30 p.m. on Saturdays.

## Appointments

REXALL DRUG CO., LTD., Loughborough, Leics, have appointed Mr. A. L. Cameron their sales manager for the United Kingdom.

ARMOUR PHARMACEUTICAL CO., Hampden Park, Eastbourne, Sussex, have appointed Mr. R. G. Muriel their export sales manager.

BLAW KNOX CHEMICAL ENGINEERING CO., LTD., 20 Eastbourne Terrace, London, W.2, have appointed Mr. Alan Sanderson their sales manager.

THOMAS KERFOOT & CO., LTD., Vale of Bardsley, Ashton-under-Lyne, Lancs, have appointed Mr. L. S. Greene to their Scottish medical detail staff.

THERMOS, LTD., Seymour Road, London, E.10, have appointed Mr. K. E. Parish sales representative to cover their South-western and South Wales territory.

EUCRYL, LTD., Southampton, have made the following appointments: Mr. Michael Warwick-Smith (field sales manager); Mr. A. S. Chadwick (representative for Lancashire, Cheshire and North Wales); and Mr. H. W. Walker (representative for the Midlands).

SOLPORT BROTHERS, LTD., 44 Spencer Street, London, E.C.1, announce that Mr. John West-Symes (home sales manager) is to supervise both the home and export departments pending the appointment of a successor to Mr. G. Kemp who is leaving at the end of April. Mr. P. F. Osborne has been appointed secretary of the company.

## PERSONALITIES

MR. R. THURSBY, M.P.S., is president of the Salisbury Chamber of Commerce and is the first pharmacist to be so honoured. A past chairman of the Southampton Branch, National Pharmaceutical Union, Mr. Thursby served his apprenticeship in Southport.

MR. F. JOYNT (senior representative of Thomas Kerfoot & Co., Ltd.)



Mr. Joynt

retired on April 10 after more than twenty-five years' service with the company. Mr. Joynt covered the territory of Northern England and South-West Scotland.

MR. A. HUET OWEN has taken over the general editorial management of the monthly journal *British and Overseas Pharmacy and Medicine*.

MR. W. K. OLIVER, M.P.S. (general sales manager, Boots Pure Drug Co., Ltd.) is one of the speakers at a conference on "Higher Profits Through Lower Prices" which is being organised by the Incorporated Sales Managers' Association at Torquay, May 8-11.

MR. R. RAMAGE, M.P.S., who retired on April 4 after twenty-one years as manager of Boots, Ltd., at 104 High Street, Stockton-on-Tees, was presented with a shooting stick by the staff of the drugs department of the branch and with a house lantern by the senior girls. His successor as manager is Mr. L. G. Wight, Middlesbrough.

DR. R. B. FISHER (at present biochemistry demonstrator at Oxford University) has been appointed to the chair of chemistry-in-relation-to-medicine at Edinburgh University. A Yorkshireman, Dr. Fisher gained an open scholarship in chemistry and physics at Oxford in 1926, in 1929 took an M.A. degree with first class honours in physiology, and later a B.Sc. followed by a Ph.D.

MR. W. A. OGDEN, M.P.S., Town Green, Wymondham, Norfolk, founder president of the Rotary Club of Wymondham, was invested at its Charter Night dinner with the jewel of office. Mr. Ogden is the present chairman of Wymondham urban district council and was the first holder of that office to wear a badge of office presented to the Council in 1954. Mr. Ogden is a deputy chairman of the Wymondham bench of magistrates.

MR. HUGH DEWAR, M.P.S., has retired from business as a chemist and optician in Main Street, Newmilns, Ayrshire, owing to ill health. Mr. Dewar went to Newmilns from Whitburn, West Lothian, in 1925, taking over the Main Street business a year later. Mr. Dewar has been a member of the local town council. Mr. James Auld, a native of the town, has taken over the business. He trained

under Mr. Dewar before moving to Muirkirk.

MR. RONALD M. BADDELEY (advertising and marketing director of the Vitamins Group of Companies) has been awarded the Fellowship of the Incorporated Advertising Managers' Association. The award has been made in recognition of work for advertising and for the Association. Mr. Baddeley is chairman of the

publicity committee of the Association of British Pharmaceutical Industry. During the 1939-45 war he served with the Black Watch and was awarded the Distinguished Conduct Medal.

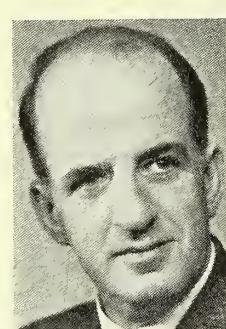
DR. BORIS PETROVITCH UVAROV, C.M.G., D.Sc., F.R.S. (director of the Anti-locust Research Centre since its inception in 1945) has retired from that office. Dr. Uvarov (a graduate of St. Petersburg university, Russia) came to Britain in 1920 having previously been director of the Stavropol bureau of entomology and Tiflis bureau of plant protection. His leadership of the Anti-locust Research Centre gained international repute and status for the centre as the world's premier locust institute. Dr. Uvarov is remaining as a consultant upon the work of the Centre and is preparing an up-to-date textbook reviewing anti-locust research and control.

MR. F. R. L. NEWBERY, whose association with the proprietary medicine industry is lifelong, celebrates his eighty-ninth birthday on April 11. Mr. Newbery, an article on whose family



tioned in dispatches. Subsequently he returned to Bourjois et Cie. and worked with them until he joined Meggeson & Co., Ltd., in 1941. Mr. Crook has received so many letters of good wishes that it has become impossible for him to answer them individually. He asks that all those who have been so kind in writing to him should accept this note of his appreciation and thanks. He is "deeply sensible" of the support and goodwill shown to him over so many years.

DR. ALAN BATLEY (general sales manager, Kodak, Ltd.), who has been co-opted to the board, is a graduate of Liverpool University, where he received his Ph.D. in chemistry in 1928. He joined Messrs. Kodak as a member of the company's research staff in 1929. In 1936 he became an assistant superintendent of the

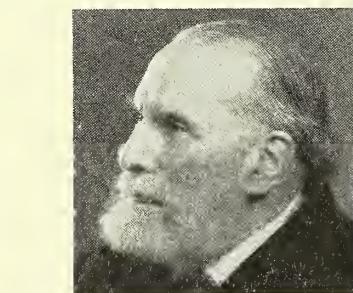


research laboratory, in 1945 head of the technical advisory department, and in 1953 general sales manager. Dr. Batley is a Fellow of the Royal Photographic Society and an Associate of the Royal Institute of Chemistry.

MR. CHARLES MORRIS, manager of the dealer/finisher sales department of Ilford, Ltd., Ilford, Essex, recently celebrated his golden jubilee in the photographic industry.

He joined Marion & Co., Ltd., Soho Square, London, W.1, in 1909 as office boy and rose to become dispatch manager. In the 1914-18 war he saw service with the army, was wounded in 1918, and returned in 1919 to a news sales department at Marion's. The company was shortly afterwards absorbed into Almagamated Photographic Manufacturers, Ltd., whose sensitised-material factories were taken over by Ilford, Ltd., in 1928. In his work for the company today Mr. Morris is responsible for the company's 20,000 accounts and for its representative staff. Extensive travels over the years have brought him into contact with many dealers, photographers and finishers and his circle of friends has been widened by attendance at exhibitions, congresses and social functions.

MR. J. A. EGGLESTON, B.Sc., F.R.I.C. (head of the standards laboratory of Boots Pure Drug Co., Ltd., at the Airdrie factory, since it was opened ten years ago) has retired. Mr. Eggleston



and their activities in the business of Francis Newbery & Sons, Ltd., was published in the C. & D., September 8, 1956, enters upon his ninetieth year handicapped by almost total blindness.

MR. L. G. CROOK, D.S.O., M.C., who for nearly twenty years has represented Meggeson & Co., Ltd., in the home counties, has decided to retire. He left school in 1904 and joined Bourjois et Cie., Ltd., Paris, and worked for that company until 1914. He was commissioned in the army and fought with distinction in France, being men-

ton joined the company in 1915, and was a section head in the analytical department at Nottingham and Beeston before being promoted to his Airdrie post in 1949. He served on the Glasgow and West of Scotland committee of the Society of Chemical Industry and had been its representative on the fine chemicals group. He was on the committee of the methods-of-analysis panel (Glasgow), a member of the Chemical and Royal Statistical Societies, for eight years honorary secretary and treasurer of the Scottish section, Society for Analytical Chemistry and secretary, St. Andrews congress on modern analytical chemistry in industry, 1957.

## Correspondence

### Stolen Photographic Equipment

SIR.—We would be pleased if you would kindly insert the following information in the stolen list of your next issue:—

STOLEN: The following Bell & Howell equipment is reported stolen from Dr. H. B. A. Ratcliffe-Densham, Beverley, Offington Lane, Worthing:—

Model 624EE 8-mm. cine camera, serial No. D34391. The following equipment is reported stolen from a company's car at Fulham:—  
Model 631 projector complete, serial No. L5328.  
Model 622 projector, serial No. 44871.  
Model 603T camera, serial No. T.23969.  
Model 603T camera, serial No. 20164.

Any information regarding the mentioned equipment should be passed to this company's service department at Mitcheldean, Glos.

DEREK V. DUTTON,  
RANK PRECISION INDUSTRIES, LTD.

### Iron by Injection

SIR.—We read with interest the article "Iron and Other Haemopoietic Drugs" by S. J. Hopkins, F.P.S., in the *C. & D.* (April 4, p. 369). It was an extremely interesting contribution containing a remarkably concise summary of the products available for iron therapy. There are, however, some points under the section "Iron by Injection" on which we should like to comment. Mr. Hopkins states: "In severe diarrhoea or ulcerative colitis, or after bowel operations, there is sometimes a need to give iron by injection." We think that you will agree that those few indications for use of parenteral iron do not agree with medical opinions expressed over the past five years, since the introduction of iron-dextran (Imferon). We would refer especially to the use of Imferon in pregnancy, where, of course, the need for rapid increases in haemoglobin levels frequently arises, also the need for building up the body's iron stores. The obvious advantage of the parenteral route is that a specific dose is calculated to correct iron deficiency throughout the body: in the iron stores, the tissues and the blood. We would refer your readers to a *B.M.J.* editorial of May 17, 1958, which states: "The only rapidly effective method at present available for replenishing the iron stores is by the parenteral route."\* The mechanisms which control iron absorption from the alimentary canal are completely overcome. We recommend that treatment should be started with 2 mils and not

5 mils as Mr. Hopkins states. We do not advocate intravenous usage, though we know of clinicians who do so in place of our intravenous product: saccharated oxide of iron (Ferrivenin). A further point concerns the "Z-track" intramuscular-injection technique. Mr. Hopkins advocates that and describes the technique that, with one exception, we recommend. He says that the skin should be moved aside *after* the needle has passed through the subcutaneous

tissue and before it enters the muscle. That we do not advise, because of the possibility of breaking the needle. Exactly the same "Z-track" can be produced, without that disadvantage, by sliding the skin aside *before* the needle is inserted.

RICHARD SHIRVELL PRICE,  
*Public relations officer,*  
BENGER LABORATORIES, LTD.,  
Holmes Chapel, Ches  
\**B.M.J.*, 1958, 1, 1167-68.

## REPORT ON DRUGS OF ADDICTION

### Committee's concern over analgesic mixtures

THE ninth report of the Expert Committee on Addiction-producing Drugs (H.M. Stationery Office, price 1s. 9d.) contains recommendations relating to the international control of a number of narcotic drugs. The Committee considered that, since nicomorphine is an ester of morphine, it must be controlled accordingly. Following a notification from the Government of the United States of America, the Committee took the view that normorphine, because it produces morphine-like effects, suppresses abstinence phenomena of a known morphine addiction, and sustains morphine addiction, must be considered an addiction-producing drug. They therefore recommended the control of normorphine and its salts. A similar decision was reached on norcodeine but, in view of the problems that would be caused by controlling norcodeine like morphine as a group I drug while codeine was in group II, recommended that the Director-General of the World Health Organisation should consult with the Secretary-General of the United Nations before making a final decision. Reviewing clinical experience with oxymorphone, the Committee considered that, in some circumstances, the drug had "medicinal advantage" and that its addiction-producing potentialities were less than anticipated, therefore the manufacture, import and export of oxymorphone need no longer be considered less desirable than for other drugs comparable to morphine.

### Italian Request Rejected

Levermoramide and dimenoxadol were also recommended for control as addiction-producing drugs. The Italian Government had requested the exemption of two preparations containing normethadone (Taurocolo pills and syrup) but the Committee rejected the request stating that it was not possible to set a limit of concentration at the present time. A similar decision was reached regarding Italian requests to exempt three preparations of dioxaethyl butyrate.

Referring to the notification from the French Government concerning 2-piperidinomethyl-7-benzoylbenzodioxane, 2-morpholinomethyl-7-benzoylbenzodioxane, 2-piperidinomethyl-7-(p-methoxybenzoyl) benzodioxane, 2-morpholinomethyl-7-(p-methoxybenzoyl) benzodioxane, the Committee considered that there was no adequate evidence of any addiction liability of those drugs, and that an opinion must wait until such evidence became available. The Committee was concerned

about the possible dangers of the prolonged use and potential misuse of certain mixtures containing phenacetin and other agents such as aminophenazone, caffeine and a sedative. Those are potentially habit-forming and under conditions of excessive use had presented characteristics approaching those of addiction.

It was thought that the use of codeine as an antitussive might account in part for the steadily increasing consumption of the drug, and the report directs attention to the possible use of non-addicting antitussives, such as noscapine and dextromethorphan, to help in the prevention of drug addiction.

The Committee considered that the carriage of narcotic drugs in first-aid kits of aircraft engaged in international flights might be permitted, provided there was evidence of the medical need for narcotics in the circumstances of air travel and provided an adequate system of control could be effectively ensured.

The Committee made a plea for the use of international non-proprietary names for narcotic drugs and suggested that, where a chemical name was used, it should be identical with that which appears in the lists of international non-proprietary names published in the *W.H.O. Chronicle* and by the United Nations Commission on Narcotic Drugs, or should be consistent with the principles applied to other drugs in these lists. The report concludes with some comments on the third draft of the proposed Single Convention on Narcotic Drugs.

There are two annexes to the report, one describing a new technique for determining the development of physical dependence and tolerance when analgesics are used in the treatment of physical pain, the other outlining the progress that has been made in establishing a centralised source of classified information on narcotic drugs at the National Institutes of Health, Bethesda, U.S.A.

### CAN YOU READ IT?

FROM Scotland comes the following difficult-to-decipher entry from an EC10 form. Other items on the form presented no problem.

R  
G. Hanckes 1/6  
F  
C. 3/11

## BRANCH EVENTS

### PLYMOUTH

#### Importance of Presentation

THE desirability of presenting dispensed medicines in suitable containers and wrappings was stressed by MR. H. JARVIS GRAVES (a member of the Pharmaceutical Society's Council) at a meeting of the Plymouth Branch of the Society on March 9. Speaking on "N.H.S. and Us," Mr. Graves also stressed the importance he attached to the appearance of a pharmacy. He fore-saw a greater number of pharmacies dispensing the smaller proportion of the total number of National Health Service prescriptions dispensed.

### THAMES VALLEY

#### Speeches Limited

THE annual dinner and dance of the Thames Valley Association was held at Hampton Court on March 4, when about 180 guests were received by the chairman (Mr. A. G. Shaw), who was accompanied by Mrs. Shaw and by Mr. and Mrs. H. Noble, the guests of the evening. Thames Valley Association has a tradition that there shall be, apart from the loyal toast, only one toast, and "Our Guests" was proposed from the chair and replied to by MR. H. NOBLE. During the evening it was announced that about £20 had been collected for the Benevolent Fund of the Pharmaceutical Society.

### WESTERN [LONDON]

#### Chemotherapy of Tuberculosis

DR. A. A. Bradley (A. Wander, Ltd.) spoke on "The History and General Principles of the Chemotherapy of Tuberculosis" at a meeting of the Western [London] Pharmacists' Association, held in London on March 11. Dr. Bradley told a large audience of the advances made in the field of tuberculosis therapy during the past decade, and explained the various antituberculosis drugs now in use. He answered many questions about different preparations and illustrated his lecture with a film. In the audience was Dr. A. C. E. Wander (a great-grandson of the founder of the company). Thanking Dr. Bradley for his address, DR. T. D. WHITTET spoke of his early experience with PAS and of a vain attempt to save the life of a young nurse from the then dreaded tuberculosis.

### HARROW

#### Reasons for Editing Reports

REASONS for the pruning of reports received from branches were explained by Mr. W. S. Bowman (markets editor, THE CHEMIST AND DRUGGIST) in an address to the Harrow Branch of the Pharmaceutical Society recently on "The Background and Presentation of a Pharmaceutical Publication."

Only a certain space could be set aside each week and since most branches sent in their reports during the winter months it was necessary to give the information as concisely as possible in order to be fair to all. Care, however, was taken to retain information peculiar to any particular meeting.

Mr. Bowman said that while the principal aim of the paper with which he had been connected during the past ten years was to give news, readers also looked for informed comment and also required "entertaining." In addition, therefore, to news and comment it was the object of the paper to supply information of interest concerning the craft, its history, its great personalities, technical and scientific developments. The C. & D. cartoons provided a unique feature and the services of "Hut" were in great demand by branches; the Harrow Branch had met him a few years ago. Cutting down reports of branch events could be a sore point with readers so Mr. Bowman explained the technical reasons why that had to be done on some, though by no means on all, occasions. Dealing with the weekly press day arrangements the speaker demonstrated how the pages were made up and how the issue was finally assembled. He read a report which appeared in the C. & D. in 1911 on the inauguration of the branch.

### EXETER

#### Annual Dinner

AT the annual dinner and dance of the Exeter Branch of the Pharmaceutical Society held recently, DR. S. NOY SCOTT (a member of the General Medical Council), in proposing the toast "The Pharmaceutical Society," said he deplored the general tendency to regard as excessive the amount of money spent per head of the population on drugs. He gave figures to show that expenditure per head in the United Kingdom was much lower than in many other countries which had no State Health Service comparable to that in the United Kingdom. Mr. H. Jarvis Graves (a member of the Society's Council) replied. Among the 131 members and guests attending were visitors from the Torquay, Plymouth and Cornish Branches.

#### Medical Uses of Isotopes

AT the February evening meeting of the Branch a film show and demonstration entitled "The Medical Uses of Radioactive Isotopes" was presented by Mr. C. F. Walker (principal physicist, Devon and Cornwall Regional Cancer Organisation). Mr. Walker demonstrated various pieces of apparatus used in hospital for the detection and measurement of radioactivity including a scintillometer which is widely used in tracing the distribution of radioactive substances in the body after injection of measured amounts. The film show included a cartoon demonstrating atomic structure, nuclear fission and the production of radioactive isotopes. The other films produced under the auspices of the "Atom for Peace" programme showed applications of radioactive isotopes.

### DUNDEE

#### The National Formulary

"THE Making of the National Formulary" was the title of an address by DR. K. R. CAPPER on February 19. He

said the practitioner required simple and easily abbreviated titles. The pharmacist required formulas in detail yet in simple form avoiding fractions in weights and measures. Costs had also to be taken into account. Many formulas were still retained because of their wide use in certain areas. There would be further improvements in the next issue. During the discussion DR. LANGLANDS stated he prescribed mixtures with a two-teaspoonful dose, and asked why a one-tablespoonful dose was chosen? DR. CAPPER said that seemed to apply only in Scotland where practitioners generally prescribe double-strength mixtures. It created some difficulties in some formulas.

MR. PROCTOR: "Would it not be possible to forbid certain formulas to be prescribed double-strength, e.g., mist. pot. cit. et hyoscyami, which was an impossible one?" DR. CAPPER agreed that if the B.N.F. was accepted in Scotland and the pharmacists made application on that point then an appendix could be included with double-strength mixtures. DR. TROUP asked what was the point of stating the number of tablets which should be sent when in some cases the number had no therapeutic value? DR. CAPPER said the numbers quoted were intended only in emergency where the practitioner had omitted to instruct how many to send. The new issue would quote a number that would have a therapeutic value. Tidying up was being done since the one-shilling charge made the original numbers so ridiculous. He said there was no collaboration in this matter with the Cohen committee.

MISS FYFE asked—was there any indication that the B.N.F. was being used more in Scotland? DR. CAPPER said it was difficult to assess that because it could only be done by the sale of the book. MR. LYALL wanted to know why the B.N.F. did not state what type of container should be used for storage and how long mixtures could be kept in concentrated form? He was told that there would be more precise details on the matter in the next issue. The pharmacist must see that "recently prepared" could mean one week or one month depending on local conditions, water, heat, storage, etc. MR. MACFARLANE asked for comments on the container suitable for physical protection especially with digitalis tablets. DR. CAPPER condemned the skillet type of container. Any screw-cap type of bottle was suitable or any similar type of bottle or tube which excluded moisture vapour and protected from crushing. MR. MACFARLANE asked if there would be any change in recommended number to be sent when dispensing Schedule 4 products. DR. CAPPER stated that the change in the law would enable the next issue to state how many should be sent (but not the dose). DR. Capper also enlarged on formulas of doubtful therapeutic value. It was difficult sometimes to say which were in that category. If there was a large demand for any of them they had to be included in the formulary. The vote of thanks was proposed by DR. LAW.

# Tablet Counting

## *A survey of methods in use in pharmaceutical manufacture*

DURING the past few years the greatly increased manufacture of tablets, capsules, etc., has resulted in the development of specialised packaging machinery and methods, especially for sample packs, strip packs, roll packs, etc. The bulk of packaging is still left, however, to tablet counting machines.

There are five methods of packing tablets, namely weighing, counting from tablet presses, by hand tablet counters, by mechanically operated machines, and by electronic machines. Weighing is still carried out by manufacturers with large batches to handle, but only when the products are relatively cheap, as there is an inaccuracy of between 2-4 per cent. to contend with.

Tablet counting may be achieved by gearing machines with tablet presses where a known quantity of tablets is being fed off the machine, but that method lacks flexibility and sometimes results, when small counts are required, in the tablet press having to be slowed down to suit. The method, moreover, does not allow for analytical checking of tablets before packaging.

Hand counters were used in the first attempts to increase production. They were originally wooden paddles with blind holes drilled to the size of the tablet, the number of holes corresponding to the count. Such paddles are still used extensively, though in a more modern form with metal paddles and a quick release. Accuracy still depends on a good operator, but the method does allow the operator to inspect the tablets before placing them in the bottles. Unfortunately, there is a possibility of damage to the tablets each time the paddle, when being loaded, is dipped into the mass.

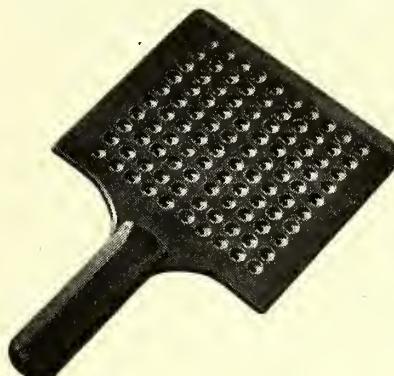
There are a number of mechanical methods of counting tablets. Two of them are adaptations of the paddle method, but instead of the girl inserting a paddle into the mass of tablets, that is done mechanically and synchronised to work with a bottle-feed arrangement. It consists of a wooden tray with the base of the tray mounted on slides and drilled out to suit the number of tablets. A girl operating the slide vibrates it in the mass of tablets and withdraws it, allowing the tablets to drop out of the slide into the bottles.

The disc counting machine is based on the same principle, except that holes are drilled through discs, which may be between 12 in. and 36 in. in diameter. As the disc rotates it passes through the tablet bulk, again picking up tablets and discharging them into bottles. An American technique is to mount the disc at an angle, so that tablets are at the base of the machine and the disc then passes through them. As it goes uphill, the surplus falls back into the mass.

### Disc Counters

The British method is to have the disc horizontal, and to use a hopper with brushes mounted in it to control the tablets. That forms several pockets of tablets and ensures greater accuracy and speed of disc. It also allows the operator to have a visual check of the count. The method is used extensively for sugar-coated tablets, soft gelatin capsules, two-piece hard gelatin capsules, and certain hard, compressed tablets. American techniques sometimes make more use of the disc counter for compressed tablets, but, on average, American compressed tablets are harder than European ones. Again, the disadvantage of the machines is their lack of flexibility, in that a disc has to be made-up to suit each type of tablet and each count.

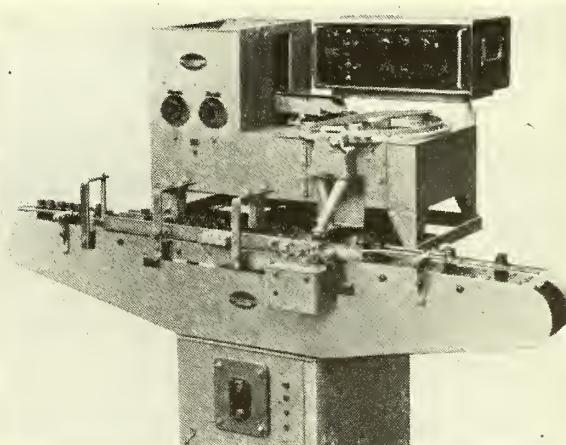
A further adaptation of the disc counter for compressed tablets is to use a disc with slots in the edge. By feeding the tablets into the slots, each of which may hold two or three tablets, the tablets can be discharged into the bottles. The method is more suitable for flat tablets, but again plates have to be made up with different-sized slots for different-diameter tablets and counts, etc. A more costly version of the disc counter consists of a series of parallel slats driven by an endless conveyor. As the slats pass beneath the hopper of tablets, the tablets fall into recesses in the slats. The



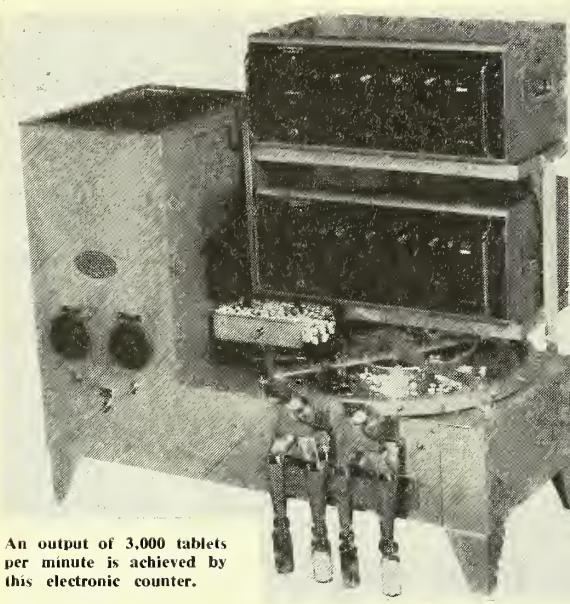
After filling this hand counter is tilted back and used as a chute for filling containers. At left: operators become skilled in using this type of wooden paddle counters.

length of slat is unlimited and can be adapted to fill a large number of bottles at one time.

Other methods usually involve the feeding of tablets in a straight line through guides to form a column, the count then being taken by measuring a certain length of the column, ensuring the correct number of tablets. A German machine feeds the tablets into a column so that they are one in front of the other, and the column can be anything up to 3 ft. in length. By a simple gating arrangement, a peg is released when the column is full, but another peg then grips the first tablet of the next batch, allowing the first complete batch to feed out of the track. The method is quickly adaptable for count, as the pegs can be moved backwards and forwards in the column to suit the count. Again the method is dependent upon a good operator, who must ensure that the column is full each time before operat-



Mounted above an automatic bottle-feed machine the electronic tablet-counting machine packs 1,500 tablets per minute at up to 60 bottles per minute.



An output of 3,000 tablets per minute is achieved by this electronic counter.

ing the counting mechanism. The method is more suitable for handling flat than convex tablets, which, when lying in the column, tend to overlap each other, causing a variation in the number of tablets to the given length. The efficiency of the machine also depends on there being no build-up of powder and chips from the tablets to clog the tracks. Various types of mechanism are in use for feeding the tablets into the columns; one is on a vibratory feeder and another (used on a popular American machine) has a gravity feed controlled by a rubber-faced roller. The machines can be designed with big outputs, as the number of tracks can be increased without limit. Another method is to feed tablets into tracks by making the tablets stand on their edge, using a small gear wheel with teeth which allow the tablet to go in between them. By rotating the gear wheel in the track, an accurate control of the feed of the tablets is obtained. A certain number of revolutions of the gear wheel, multiplied by the number of teeth in the wheel, count out the required batch of tablets. Most machines based on the principle of making a column of tablets normally handle sugar-coated tablets, depending on the shape of the tablets, and their diameters (which are likely to vary through sugar-coating). As there is by that method a definite period during which the machine rests whilst tablets are feeding into the tracks, the speed at which the machine can operate is limited. A new American technique allows for two or three machines to be fitted on a turntable, the turntable rotating so that, whilst one machine is being used to feed tablets into the bottles, the other two are allowing their tracks to be filled up, thus considerably increasing the output and eliminating waste of time.

Electronic tablet-counting machines have been a recent development. Basically the electronic machine is built in two parts: the first sorts out the tablets and presents them in a single row to the second part, which consists of the photoelectric cell and counting mechanism. Several methods are in use for sorting out the tablets, but the second part of the machine is basically the same with all methods. A German system of sorting is to use a vibrator

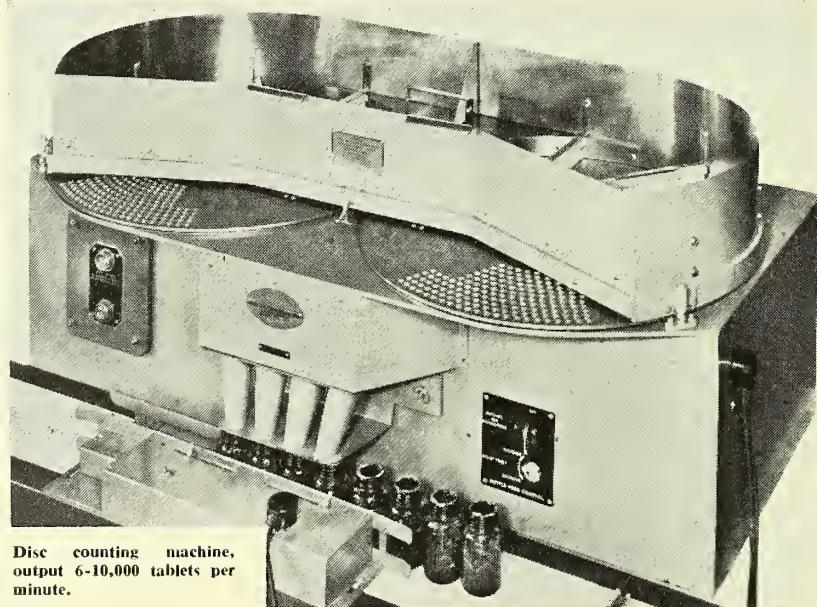
feeder delivering on to a short length of conveyor belt. Controlling the amount of tablets on to the belt in that way ensures that, as they pass over the end of the belt through the photoelectric cell, there is a gap between each tablet. The same basis underlies an American method that uses several lines on a wide belt. Another American method is to have a gravity feed of tablets through a gate on to a pair of long rollers that are rotating upwards and outwards. The rollers are set at approximately 45° to the horizontal and the tablets, as they tumble down between them, sort themselves out into a single row. There is a detecting and gating mechanism at the end of the rolls. Both the methods have a good control over the tablets, and are easily adjusted to suit the speed of counting, but there is no device which guarantees that a single row of tablets is passing through the detecting and gating mechanism when counting. The feed is controlled in the first case by a vibrator and in the second case by a hopper gate.

#### Accurate Control

The British method is to use a vibrator-feeder delivering on to a rotating plate which sorts out the tablets into a single row and then passes them through a gate, at the same time ensuring that only a single row of tablets goes through the gating mechanism so that any surplus tablets are wiped off and fed back into the feed on the rotating plate. The method allows for accurate control of the feed of the tablets and if grids are fitted into the vibrator, dust and chips may be removed before the tablets are counted.

Electronic counting is the most flexible method yet produced, as it does away with interchange parts, and the counts are simply selected by rotating switches. Machines are currently available to count up to 3,000 tablets per minute, but with further development the counting rate will be improved, reaching 6,000-9,000 a minute. With this method also it is possible to handle sugar-coated tablets and capsules, and variously shaped compressed tablets—rectangular, triangular and heart-shaped, types that it is not possible to handle with the other mechanical methods.

In the batching of tablets electronic counting has the biggest field for further development. At the moment counting is restricted to one or two tracks of tablets at one time, but it will soon be possible to count several tracks at one time into a number of bottles, or alternatively to count several tracks at one time into one bottle with the use of summation equipment.



Disc counting machine, output 6-10,000 tablets per minute.

# Heating by Electric Mantle

*Some of the ways in which surface heating has come to rapid popularity in pharmaceutical laboratories, factories and plants*

TO say of Isomantles that, once introduced, they "caught on like wildfire" would be substantially true but inappropriate. For their essence is that they enable heat to be applied over a defined area under full control. In ten years or so their use has multiplied at an accelerating rate and has found new applications from the very smallest laboratory scale to manufacturing-scale plant.

The word Isomantle is a trade mark describing the versatile patent electric surface heaters manufactured by Isopad, Ltd., Barnet By-pass, Boreham Wood, Herts. The essential component of them all is a "mantle," usually of glass yarn, in which is embedded an electrical resistance, the whole adapted to wrap round the vessel to be heated. The glass yarn withstands temperatures up to 550° C., and the standard mantles, all designed to operate at "black heat," are used to raise temperatures of liquids to levels up to 350° C. The heat is transferred from mantle to vessel partly by radiation and partly by conduction. As transfer is uniform over the whole surface of contact, the "bumping" that might occur from, say, using a naked flame is avoided. The heating element is, of course, fully insulated, and so deeply embedded in the mantle that, even if the liquid spills upon it, evaporation is normally so rapid that no short circuit occurs and the mantle suffers no damage. If temperatures from 350° C. to 600° C. are required, they are provided from other Isomantles in which quartz fibre and not glass yarn is used for the heating surface.

#### Laboratory Applications

An almost infinite variety of examples of Isomantles from the tiny micro-scale unit to the manufacturing-scale installation exists because the same basic principle is adapted to apply to vessels of widely differing sizes, shapes and functions. The smallest is an Iso-



Seamstresses stitching in resistance wires to the glass-yarn "mantles."



2. Isomantle heating 5-gall. acetic acid demijohn.

mantle for a 5-ml. bulb used for purposes of microanalysis.

In the laboratory field, heating mantles have been used for a number of years for all sizes of flasks, and illustration 1 shows a comparatively recent model for use in semi-micro analysis, a technique whose advantages in saving material, bench space and labour have brought it into growing use.

Heating mantles are available for laboratory flasks of all sizes, as well as for beakers, funnels, etc. There are even extraction units comprising banks of four or six heaters for Soxhlet, Kjeldahl and similar work.



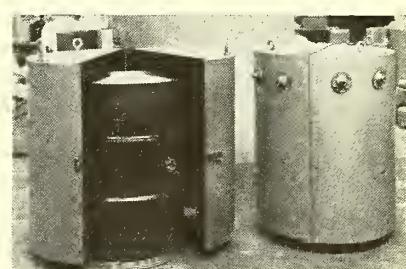
1. Isomantle for semi-micro analysis: a heating unit suitable for flasks of 10-25-ml. capacity, and incorporating a stepless variable resistance.

#### Glass Pilot Plant

Next in scale above laboratory-size Isomantles are those available for pilot-plant purposes, for which the inherent advantages of glass, both as a container and for pipe lines, have led to its use for larger flasks and so provided new opportunities of applying the electric surface-heating technique.

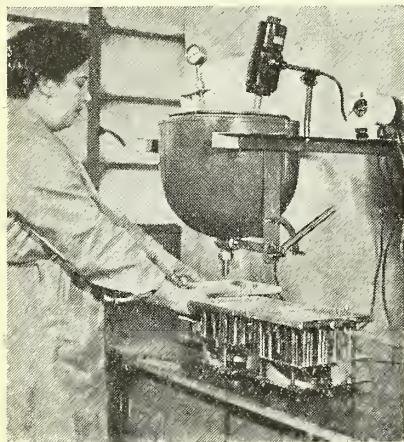
At the pilot level, as also in manufacturing operations, some materials may be too viscous to pour at the temperature of the surrounding atmosphere. They may be heated by appliances such as that shown in illustration 2, which depicts a 5-gall. demijohn containing acetic acid heated by mantle.

Mantle heating may also be applied to viscous materials supplied in the drums in which they come from suppliers. The heater is made in two hinged halves supported by castors, which are easily swivelled around the drum. Illustration 3 shows a special version that also heats the top of the drum and has lugs for lifting.



3. Heater for drum of viscous liquid.

For manufacturing operations in the cosmetic industry there have been prepared such mantles as the lipstick hopper shown in illustration 4.



4. Lipstick hopper heated by Isomantle.

#### Heating of Process Vessels

Electric surface heating has been found of great advantage for the heating of process vessels. First cost is low, and running costs compare favourably with alternative methods; standard Isomantles are now available also for autoclaves, mixers and valves.

If desired, almost the whole available surface of a vessel may be heated. The surface is generally subdivided into horizontal (and independently controlled) heating zones. There being no thermal stresses or shocks, the method is ideal for use with enamelled and glass-lined metal vessels. Cut-outs for bottom and side outlets, heating and cooling coils, thermometer pockets, etc., are easily allowed for if wanted. In hemispherical mantles up to 30-gall. capacity the heating element is fastened to the metal shell by a patented helical spring device. Glass cloth of special alkali-free yarn is always used.

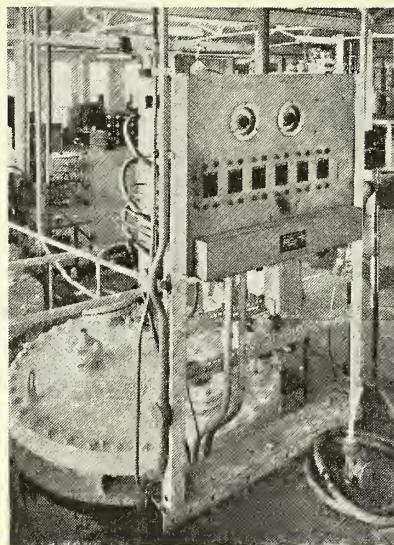
Many factories in the pharmaceutical and chemical industries have to have "flameproof" areas. For use in those

areas special versions of heating mantles (approved by the authorities) are made. The heating element in them comprises metal-sheathed mineral-insulated resistance wires terminating in "flameproof" glands. Illustration 5 shows a flameproof heating mantle that has been in daily use since 1953.

Various types of manual or automatic control are available for use with heating equipment for process vessels, a typical example being shown in illustration 6.

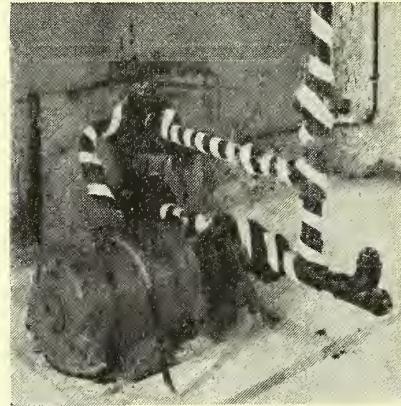
#### Tapes and Panels

In addition to complete heating and



6. Control unit comprising mercury-in-steel thermometer controlling liquid temperature up to 400° C., with additional unit for control of heating surface calibrated up to 600° C., and individual switches for heating zones.

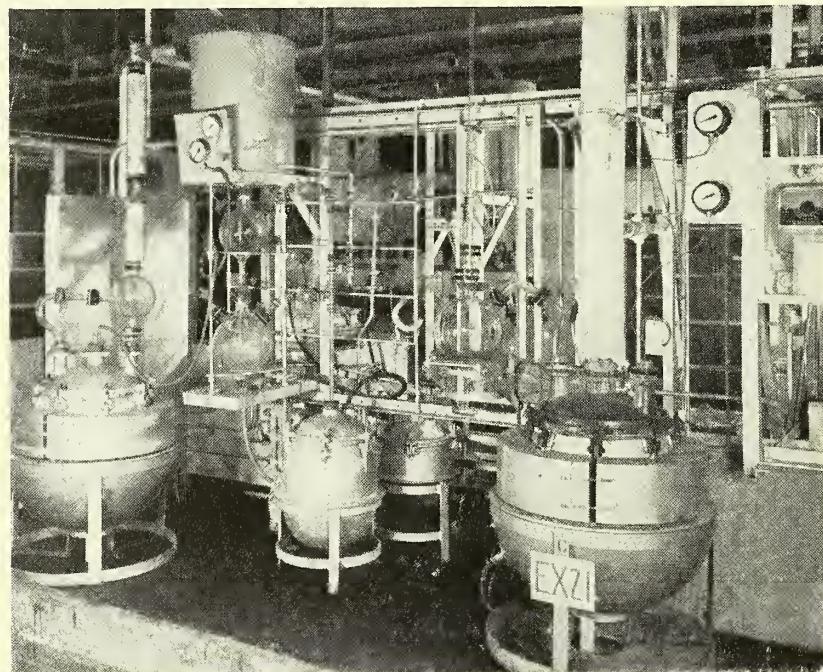
lagging units as described above, flexible surface-heating appliances are made. One example is the Isotape (shown in use in illustration 7). The tapes are made in standard sizes between 36 in. and 200 ft. in length, and in various wattage loadings. They are used for maintaining elevated temperatures on pipe lines carrying chemicals, etc.



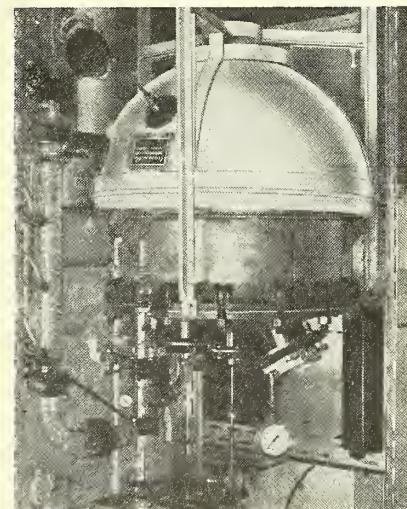
7. Isotapes spiraled on a pipe line.

For the heating of storage vessels there are available flexible heating panels in a number of standard sizes. A comparatively recent development in that sphere has been the use of panels to heat road tankers, the energy being provided either from mains supplies or from diesel generators mounted on the tankers themselves.

New applications of the electric surface heating method are continually being found. Because it proves, in so many conditions, clean, efficient and economical, the method is in ever-growing favour.



8. Isomantles used for heating sulphonating pots at the laboratory chemical manufacturing plant of The British Drug Houses, Ltd., Poole, Dorset.



5. 25-gall. stainless-steel vessel heated by flameproof Isomantle.

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<sup>1</sup> *J. Amer. med. Ass.* 167: 973, 1958

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# Plastic Materials in Chemical Plant

## Applications of polythene, PTFE and nylon

IN the packaging of pharmaceutical products plastic materials have wide applications. The use of polythene wrappings, for example, has shown a remarkable widening in the past few years. Its qualities of toughness and flexibility have led to the use of polythene in the production of a variety of moulded containers for liquids and powders, from plain bottles to ingenious "puffers" and sprays in many distinctive shapes.

The same properties may also be called for in the construction of elements in apparatus and plant used in the processing of chemicals, including pharmaceutical products. It is on those applications of polythene and other plastic materials that attention is here focused.

### POLYTHENE

As its name indicates, polythene is manufactured by polymerising ethylene at high pressure. The resulting material is naturally translucent but can be pigmented. Polythene is available from the prime manufacturers in various grades and in many forms, such as granules, fine powder, pipe, sheet, rod and mouldings. It is exceptionally inert chemically, being virtually unattacked by most chemicals at room temperatures. Though subject to possible slow



Vessels and containers for which the chemical resistance of Alkathene brand polythene makes it an eminently suitable material. At left: An acid bucket moulded from Alkathene by Rediweld, Ltd., Crawley, Sussex.

oxidation at higher temperatures, polythene is resistant to solutions of organic salts at up to 100°C. It is almost completely insoluble in organic solvents, though some softening or embrittlement may occur. At elevated temperatures some concentrated acids and oxidising acids cause chemical attack, and at temperatures above 60°C., polythene is soluble in aliphatic, aromatic and chlorinated hydrocarbons.

Light in weight (having a density approximating one-eighth that of steel) it is easily handled even in bulk.

From a processing point of view polythene may be machined, welded, extruded or moulded. Much work has been done on the production from it of tubing, and Imperial Chemical Industries, Ltd., have introduced an Alkathene range of tubing in bores from  $\frac{1}{4}$  in. to 2 in., in lengths up to 500 ft., and in heavy and normal gauge ratings. Lengths



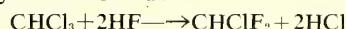
Fume exhaust side ducting made from Alkathene.

of the tubing may be joined together with either screwed or compression joints or with Alkalite fittings containing circular resistance elements. To those, when connected with external wires, an electric current from a heavy-duty battery may be applied for 15-30 seconds to heat both the fittings and the tube, thus welding them together.

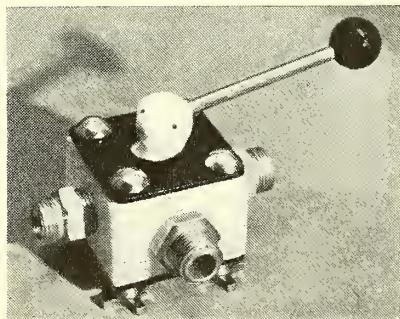
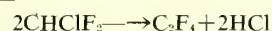
Because of its resistance to chemicals and the ease with which it can be built up, polythene is being widely used in the fabrication of chemical plant. It is of special value when all possibility of metal contamination has to be eliminated. It is, however, affected by ultra-violet light, bright sunlight, and catalysis, which cause its oxidation in air, and the unprotected material is therefore not suitable for outdoor use. For such applications special formulations such as the I.C.I. Alkathene coloured compound (black) should be used. There are a bewildering variety of industrial applications for polythene, of which the few illustrations here given (they were provided by Imperial Chemical Industries, Ltd., plastics division) may serve to indicate some of the potentialities of the material.

### POLYTETRAFLUOROETHYLENE

Polytetrafluoroethylene (PTFE), a thermoplastic like polythene, has been described as chemically the most inert organic material known. The only substances known to react with it are fluorine and molten alkali metals. Polymers of tetrafluoroethylene were first discovered in 1941. The method of manufacture is a partly chemical, partly physical process in which chloroform is first reacted with anhydrous hydrofluoric acid:



and the  $\text{CHClF}_2$  (disfluoromonochloromethane), a gas boiling at  $-40.8^\circ\text{C}$ ., is pyrolysed at  $600-800^\circ\text{C}$ . To give tetrafluoroethylene:



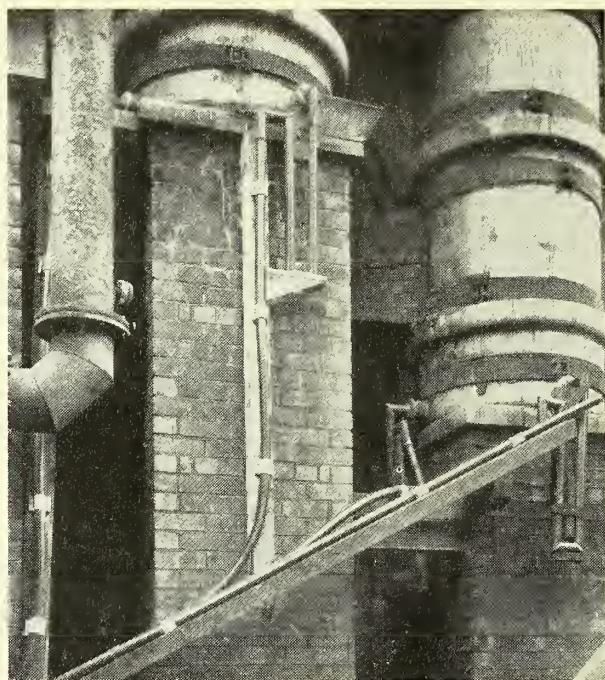
The tetrafluoroethylene is isolated and then polymerised under pressure in stainless steel autoclaves in the presence of an aqueous solution of ammonium persulphate or other

Omega valve made from solid PTFE.

peroxycatalyst. The reaction is exothermic, and the polymer produced,  $(C_2F_4)_n$ , is a granular white solid. The substance has no true melting point, but above 400°C. it slowly breaks down into its monomer and other fluorine-containing compounds. It has exceptional non-sticking properties (few substances will stick to it even at elevated temperatures), is non-wetting, and has such a low coefficient of friction (about the same as wet ice on wet ice) that it is virtually self-lubricating. Its properties led Imperial Chemical Industries, Ltd., to market PTFE (it is issued under the trade mark Fluon) for the purpose of eliminating unwanted adhesion in feed hoppers, chutes, conveyors and guides. By preventing the build-up of sticky materials, PTFE-covered machine components eliminate production losses caused by maintenance and cleaning schedules. At normal temperatures components made from PTFE are tough and resilient. They withstand harsh treatment and have a long service life. The material is therefore usefully applied as plant gaskets, diaphragms, filters, valve seats, valves and nozzles, pumps, bellows and couplings. The physical characteristics of the material are put to apt uses in the series of fluid-control valves issued by the Watson-Marlow Air Pump Co., Marlow, Bucks, in which the body and plug are machined from solid PTFE, thus eliminating the necessity for a lubricant and at the same time avoiding a possible source of fluid contamination. The operating range of temperatures of PTFE is from  $-80^{\circ}\text{C}$ . to  $+250^{\circ}\text{C}$ . so steam and autoclave sterilisation cause no problem. Hydraulic hoses with an exterior steel braiding are also now being manufactured of PTFE to carry a wide range of solvents, fluids and acids. Because of the poor flow characteristics of the polymer and the high working temperature required, special techniques have been worked out for fabricating moulded and extruded forms. The granular powder is compacted in the cold in a mould. The preform thus obtained is then "sintered" by raising the temperature to above  $327^{\circ}\text{C}$ . The process is complete when the moulding becomes translucent. Blocks of the polymer can, like polythene, be drilled, turned and machined, and normal woodworking tools can be used upon it.

#### NYLON

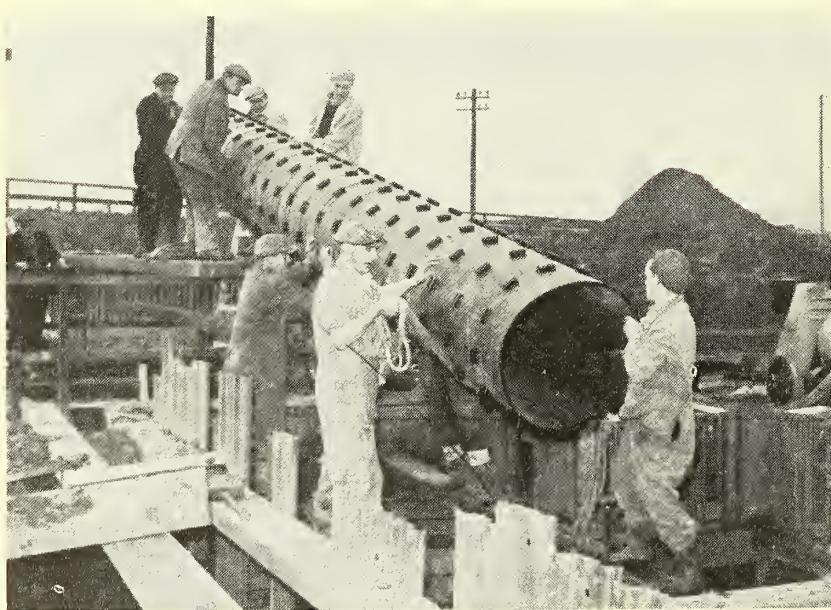
To those who think of nylon only as a fabric it may be surprising that a range of nylon thermoplastic polymers is available to the designer of chemical plant. Two basic types



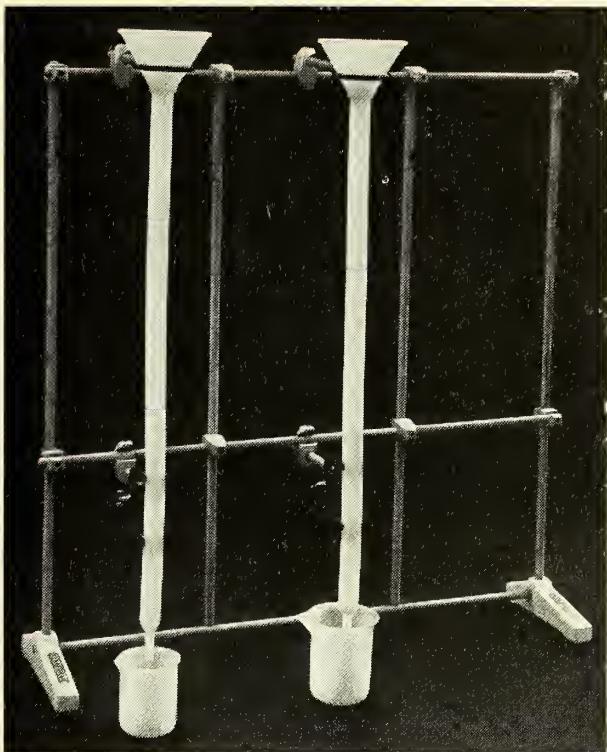
Black Alkathene drain pipes from hydrochloric acid stripping towers on the chlorosulphuric acid plant of Chance & Hunt, Ltd., Birmingham.

have been developed by Imperial Chemical Industries, Ltd., in Great Britain. Type 66 is made from hexamethylene diamine ( $(NH_2(CH_2)_6NH_2$ ) and adipic acid ( $COOH(CH_2)_4COOH$ ). Type 610 is made from sebacic acid derived from castor oil. The two nylons provide a range of nylon polymers for the production by injection moulding or extrusion of a variety of end products of different properties, including gears, cams, bearings and other moving parts. The chemical inertness of nylon permits its use in bottles and tubing for a wide range of pharmaceutical products. Nylon hypodermic syringes are durable and in considerable use. Nylon monofilament is available for non-absorbable surgical sutures. In both examples advantage is taken of the fact that nylon may be repeatedly sterilised (it is one of the few plastics that can). The nylons are relatively unaffected by long exposure to air at room temperatures and at all humidities. At elevated temperatures the nylons are subject to oxidation, with gradual embrittlement. Exposure to strong sunlight adversely affects their mechanical properties, but they are unaffected by most organic solvents, though phenol and similar materials, formaldehyde, and at high temperatures benzyl alcohol and nitrobenzene must be avoided. The resistance of the nylons to alkaline solutions and to dilute caustic alkali is good, their resistance to acids moderate. They are also affected by hydrogen peroxide and chlorine bleaching agents.

A study of the unique properties inherent in the various thermoplastic materials often reveals that one plastic is more appropriate for use in certain conditions, and by that means the advantages of the plastic are best used. A recent example of the way in which various plastics can be used to contribute their maximum efficiency is to be found in the Watson-Marlow HR flow inducer, which can be used



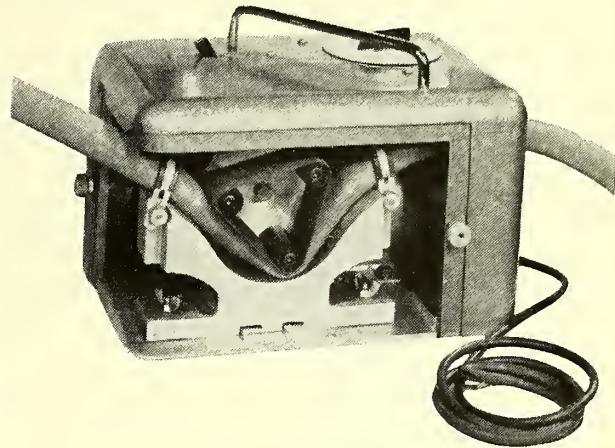
Erecting an Alkathene polythene drain for the sulphuric-acid plant at the Billingham Division factory of Imperial Chemical Industries, Ltd.



Chromatographic columns from Alkathene polythene by Rediweld, Ltd.

instead of a pump when fluids are to be transferred through pipes. A flexible pipe is clipped to a multicurved track. That is locked into the machine, when the central curve is

concentric with a rotor bearing three rollers. As those revolve the rollers pass over the pipe, flattening it against the track at the point of contact only. The "flat" accordingly moves round the central curve of the track driving anything in the pipe before it. At the same time restitution of the pipe behind the roller creates a powerful suction, drawing in more fluid to be pushed by the following roller. The pipe is held in position by two nylon clips, and the



Flow-inducing valve from PTFE with roller bearings of nylon.

rollers are made of nylon filled with molybdenum disulphide and thus are permanently self-lubricating. The choice of material for the pipes depends upon the physical and chemical nature of the fluid that is being handled. For specially difficult cases a pipe has been developed with a Fluon (PTFE) lining.

## INSTRUMENTS AND APPARATUS

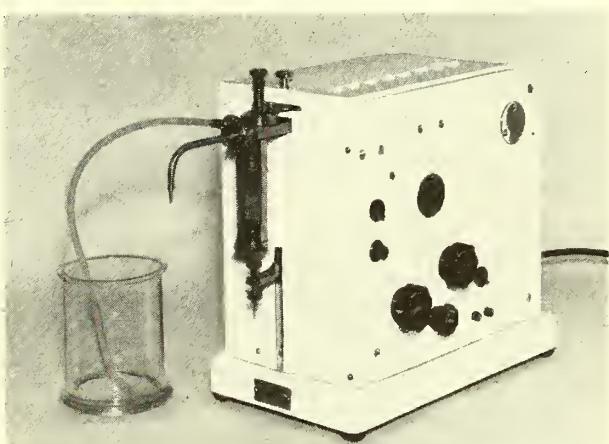
**Tablet Disintegration Tester.**—Designed to comply with the essential requirements of the British Pharmacopœia, the new Manesty tablet disintegration tester has a main frame of welded angle iron with which the tank is integral. The base of the tank is of sheet metal and the sides of glass. Heat

is supplied by an immersion heater thermostatically controlled. The tablet cage accommodates six tubes that rest on discs of stainless steel mesh. The actuating mechanism is enclosed in the cabinet below the tank, the drive being taken through a centre column in the tank to the cage.

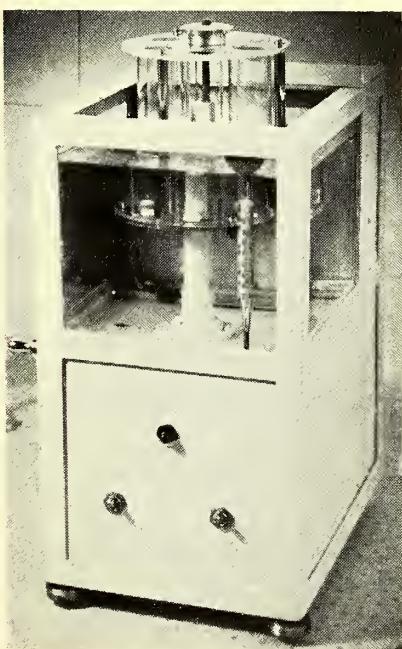
**Automatic Dispenser.**—Volumes between 0.5 and 20 mils, or 0.1 and 0.5 mil may be measured by the Striers automatic dispenser at adjustable speeds varying from five to forty per minute. Depending on the volume, the accuracy of the instrument is claimed to be within the range 0.005–0.01 mil or 0.001–0.002 mil. The dispenser is distributed by C a m l a b (Glass) Ltd., Cambridge. The volume of liquid to be dispensed is preset by a simple manual adjustment of the control knob. Once the setting has been determined, it may be reproduced by reference to a vernier-type precision scale. Measurement of the volume within the dispensing chamber is effected by a connecting rod with an

adjustable stroke linked to a variable-speed motor. The standard equipment comprises three dispensing chambers (2-mil, 10-mil and 20-mil). A 5-mil dispensing chamber for volumes of 0.1–0.5 mil is an optional extra.

**Test Screening Machine.**—The Jel 200 test screening machine, made in Germany by J. Engelsmann, A.G., and distributed by Woodstock (London),



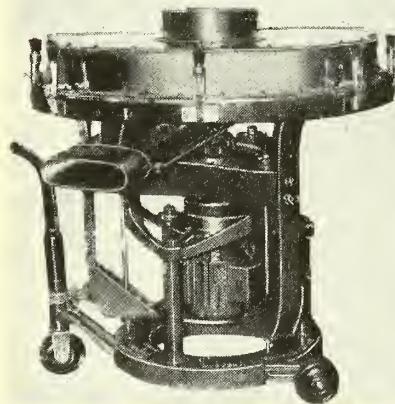
Ltd., 33 The Little Boltons, London, S.W.10, is said to be noiseless, dust-free, reliable, simple, accurate and speedy in operation. With it products with a minimum particle size of 30 $\mu$  may be tested and separated.



## MACHINERY AND PLANT NOTES

**Comminuting Machine.** — Manesty Machines, Ltd., Speke, Liverpool, 24, are now making in Britain the Manesty FitzMill universal all-purpose comminuting machine for reducing to powder, granule or slurry a variety of materials. The machine is made in stainless steel and its comminuting chamber is reversible. It is completely mobile.

**High-speed Sieving.** — Russell Constructions, Ltd., Russell House, Adam Street, London, W.C.2, claim that their Invicta screen "achieves the pinnacle of development" in high-speed sieving

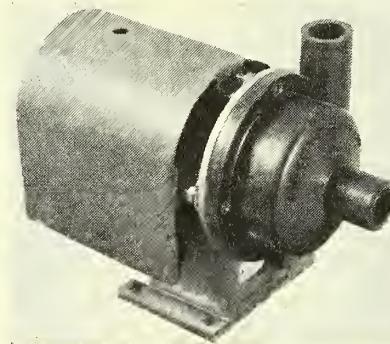


and straining equipment, achieving outstanding outputs in the application of both dry sieving and liquid separation. The parts are interchangeable, easily cleaned and maintained.

**Variable-speed Centrifuge.** — Thomas Broadbent & Sons, Ltd., Central Ironworks, Huddersfield, have produced a new variable-speed centrifuge with labour-saving features and high production output. The machine is a suspended under-driven centrifuge with a mechanical unloading plough discharging through a basket bottom. The mechanical plough empties the basket in a short time, and thus reduces the overall time cycle. It is counterbalanced for easy operation and, being mounted clear of the suspended machine, is not subjected to vibration when an out-of-balance load is present. A hydraulic drive motor gives speeds for feeding, drying and discharging. All contact parts of the centrifuge are made of stainless steel, and the complete

outer casing may be lifted from the base to permit full inspection of the basket.

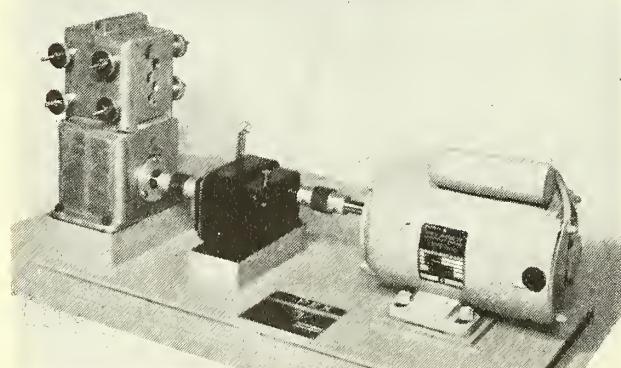
**Small but Versatile.** — A pump claimed ideal for delivering either continuous or broken flow of corrosive liquids has been developed by Appleton & Howard, Ltd., St. Helens, Lancs.



The apparatus, the Minnow, measuring  $7\frac{1}{4} \times 3\frac{1}{8} \times 5\frac{1}{4}$  in. and weighing  $5\frac{1}{4}$  lb., is of centrifugal type. It is supplied complete with direct mounted motor and guard. Pump components and motor are held in a die-cast aluminium frame with support feet, enabling the pump to be mounted on bench or panel or incorporated in a packaged unit. Suction and discharge branches are suitable for  $\frac{3}{8}$ -in. bore rubber or plastic hose. Pump body and impeller are made of high-density polythene, and the shaft sleeve of high-grade stainless steel, rendering the unit resistant to a wide range of corrosive fluids.

**General Chemical Pump.** — The Apex 192 sinus chemical pump, manufactured by Apex Construction, Ltd., 15 Soho Square, London, W.1, is a general pumping unit for use in research and process departments. The apparatus pumps liquids or gases without being affected by solids in solution, and without risk of contaminating the fluids conveyed. That is achieved without the use of stainless steel or other expensive acid-resisting materials. The pump operates by compressing a rubber tube carrying the liquids between a pressure plate and a number of "fingers" that operate in a sinus movement. The pressure against the rubber tube imparts a positive single-directional movement to the liquid, and the "fingers" are de-

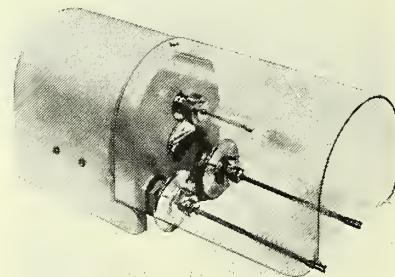
signed to withstand long usage without appreciable wear. Rate of flow may be varied by changing the size of tubing used, altering the speed of the operating fingers or adjusting the load placed on the pressure plates.



Apex 192 sinus chemical pump (Apex Construction, Ltd., London, W.1).

**Improved-design Gate Valve.** — Langley Alloys, Ltd., Station Road, Langley, nr. Slough, Bucks, announce a detailed improvement in the design of their alloy gate valves. The effect of the change is to give better shut-off power over much longer periods between maintenance, yet without using plastic, rubber or other non-metallic seatings. As a result, the valves are suitable for all duties for which the alloy is selected, without temperature or other limitations that would apply if non-metallic seatings were introduced. The improvement is brought about by specially machining faces on the wedge or gate of the valve, the faces consisting of a series of concentric annular "lands" with grooves between.

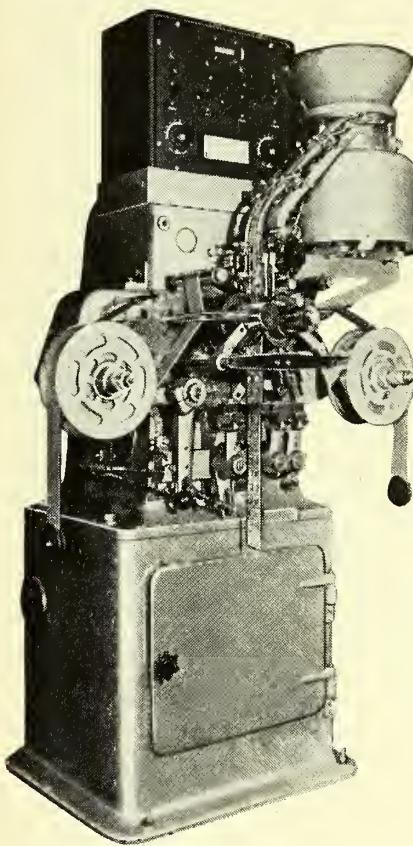
**Bottle-brushing Machine.** — A new bottle-brushing machine incorporating novel features has been introduced by the Thomas Hill Engineering Co. (Hull), Ltd., 247 Beverley Road, Hull, Yorks. The machine, the Swift electric bottle brusher, is being manufactured



in six models. According to the model selected two, three, four or five brushes rotate simultaneously, and special "quick-release" chucks for holding small brushes for test tubes, vials, etc., are also offered. The electric motor is protected against splashing by a cover that also encloses the drive. Machines are available for delivery ex stock.

**Water Deionisers.** — An economical source of pure water is made available in the Griffin-Raleigh deioniser, produced by GRIFFIN & GEORGE (SALES), LTD., Ealing Road, Alperton, Wembley, Middlesex. The deioniser makes use of a new process that enables mixing and reclassification of the anion and cation resins to be carried out in columns down to 3 in. in diameter, thus making it simple to regenerate the resins *in situ*. The apparatus is supplied in two sizes giving 16 and 64 gall. of water per regeneration respectively. — The Elgastat Major mark II equipment for producing deionised water has all exposed components made from corrosion-resistant plastic and may therefore be used in corrosive atmospheres. It produces distilled quality water at the rate of twenty gall. per hour. Where commercial-grade distilled water is mainly required, a capacity and exhaustion indicator is incorporated. For critical applications a conductivity monitor forms an integral part of the unit; it gives an accurate quality check throughout the exhaustion cycle. The equipment is made by ELGA PRODUCTS, LTD., Railway Place, London, S.W.19.

**Strip Packaging.**—Machinery (Continental), Ltd., 42 Park Street, London, W.1, are manufacturing the Wetzel type EW102 strip-packaging machine

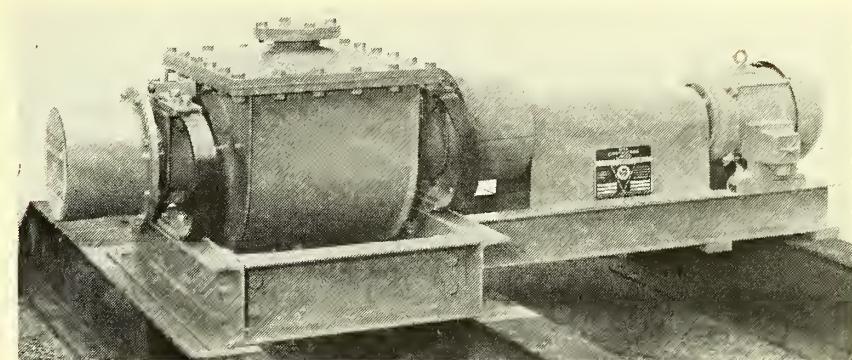


under licence from the German firm Erich Wetzel Verpackungs-maschinen. The EW102 is designed for tablets and capsules at speeds of up to 650 per minute.

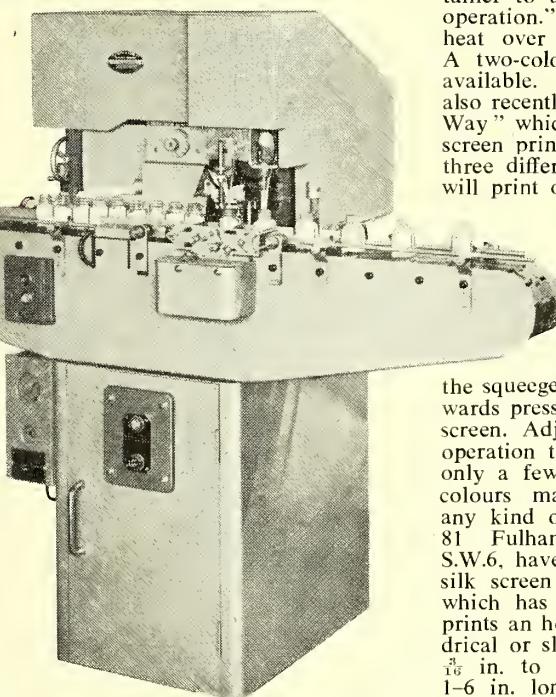
**Mixing Chemicals in the Drum.**—Manesty Machines, Ltd., Speke, Liverpool, 24, have produced a drum mixer for the complete mixing and blending of powders, etc., in standard 16 x 20 in. stainless-steel or galvanised-iron drums. The mixer makes use of an interchangeable paddle and rolling motion imparted by rubber-tyred rollers.

#### New Vibratory Mixers.

A new range of vibratory mixers of ten to 3,000 litres capacity, with no rotating parts and requiring no mercury seals or stuffing boxes, have been designed by Dr. H. Muller, Switzerland, and are being distributed by QVF, Ltd., Fenton, Stoke-on-Trent, Staffs. It is claimed that increased power/capacity ratios and simplicity of design make the machines suitable for most liquid mixing problems. Each mixer comprises a vibration generator, operating on alternating current, which vibrates the shaft at the same frequency, moving it up and down in short powerful strokes. A two-way switch is incorporated to alter the stroke length of the shaft, by means of which the mixing action can be increased or decreased as desired.



**Vibratory Ball Mills.**—Apex Construction, Ltd., 15 Soho Square, London, have extended their range of vibratory ball mills to ten models with working capacities from 0.5 to 250 litres. The Apex vibratory ball mill No. 163 operates on a new principle by which the mill, instead of rotating to cause the balls to cascade, is non-revolving and subjected to a vibratory motion. As the frequency of vibration is high, the balls rapidly subject the material to impacts and at the same time rotate. Materials may be pulverised to a 1 micron size, reduction being more rapid. Materials that previously resisted disintegration down to impalpable sizes are now capable of such size reduction. The mill can eliminate the need for screening or air sizing of the product, as there are never any particles much larger than the average of the whole batch. The smaller sizes of vibratory ball mills normally consist of cylindrical stainless steel or porcelain pots; in the larger sizes are mild or stainless steel troughs closed with lids. Rubber-lined vessels are available, and the larger sizes can be water-cooled.



**Cotton Wool Inserting Machine.**—To deal with the automatic "cottoning"

of all types and shapes of bottles and aluminium tubes at up to sixty bottles per minute, C. E. King & Sons, Ltd., Staines, Middlesex, have introduced the Triumph cotton wool inserting machine. The machine handles all types of wool, breaking it to any pre-determined length between 5 in. and 12 in. as specified. After the wool has been broken off it is pushed under a "tucking" head with the bottle or container underneath. The "tuckers" push the wool into the bottle and the wool is then rammed to a pre-determined level and pressure. To ensure a firm pack the bottles are vibrated before and during the tucking operation.

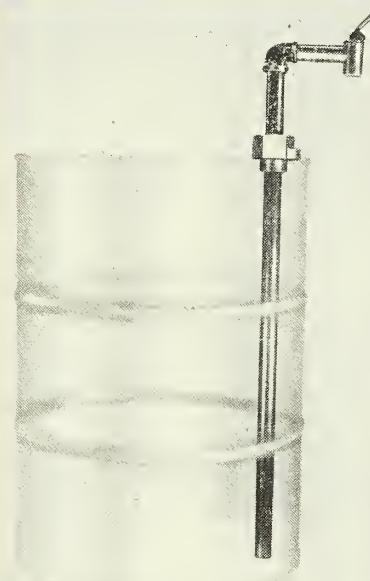
**Label Printing Machines.**—DAWSON BROS., LTD., Ventnor Works, Gomersal, nr. Leeds, have introduced a machine that in one operation prints labels in up to four-colours direct on to containers. The Dawson fully automatic rotary multi-colour paperless labeller can be used with bottles, jars, cans and similar cylindrical containers, in all sizes up to 1 gall., whether made from glass, metal, fibre or plastic. Changing from printing one size of container to another is "quite a speedy operation." The printing withstands heat over pasteurisation temperature. A two-colour printing model is also available. Messrs. Dawson Bros. have also recently produced the Dawson "3-Way" which is claimed "the only silk-screen printing machine that can print three different ways in one unit." It will print on round, square or tapered objects.

In round printing the screen moves backwards and forwards over the objects being printed whilst the squeegee remains stationary lightly touching the screen; in square and flat printing the squeegee moves backwards and forwards pressing lightly on the stationary screen.

Adjustment from one printing operation to another is stated to take only a few minutes. Single or multi colours may be printed on almost any kind of material.—REJAFIX, LTD., 81 Fulham High Street, London, S.W.6, have recently introduced a new silk screen machine, model S/S 1000, which has an output of up to 6,000 prints an hour. It is designed for cylindrical or slightly tapered articles from  $\frac{1}{16}$  in. to  $\frac{15}{16}$  in. diameter and from 1-6 in. long. Since two articles are fed and printed simultaneously, the speed of the machine is kept low. The S/S 1000 prints up to an area

3½ in. long x 2¾ in. circumference, is simple to operate and incorporates a sensing device that ensures that no printing takes place should an article fail to feed. There is provision for an infra-red drying unit to be fitted over the conveyor chain.

**Barrel "Dispenser."**—Screwed in and connected to a supply of compressed air, the Suba model 108 air-operated barrel dispenser manufactured by Suba Hydraulics, 142 Carshalton Road, Sutton, Surrey, delivers liquids at the rate



of fifteen gall. per minute, according to type of vessel and viscosity of liquid. Apart from the delivery valve, which is manually opened and closed, there are no moving parts and deterioration through wear is therefore negligible. There are no vanes, rotors or pockets where contamination could take place and consequently all that is required when changing from one liquid to another is one simple flush-out of the "dispenser."

**Vacuum Drying.**—The drying of heat-sensitive materials, and of materials that readily oxidise when in contact with air, presents problems to the manufacturer—especially when the material has both those qualities. Sometimes when the answer to the problem appears to be vacuum shelf drying, additional difficulties may arise because of (a) uneven drying, necessitating prolonged heating at less than optimum temperatures; (b) the time needed to bring a large drying compartment down to the required vacuum; (c) the labour required to operate the conventional vacuum dryer with its heavy door. Calmic Engineering Co., Ltd., Crewe, Cheshire, claim to have overcome those difficulties in the Calmic C51 vacuum dryer, the primary heat source of which is sub-atmospheric or vacuum steam at a temperature that can be closely controlled. The makers state that evaporation rates as high as twenty times those of conventional vacuum dryers have been obtained with the dryer.

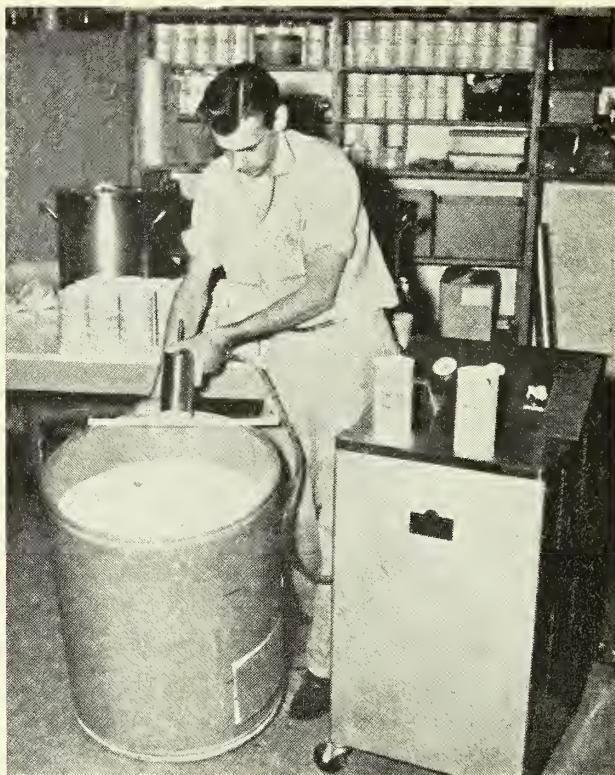
#### Powder Filling.

—Flexile Metal Co., Ltd., Bessemer Drive, Stevenage, Herts, are distributors of the Perry Accofil Lab gun (basically a cylinder and adjustable piston combination in which a vacuum-pressure cycle is introduced). The gun is adjusted to the exact fill of powder required. Its nozzle is inserted in the bulk powder container and it automatically sucks up the exact amount. The gun's nozzle is then inserted into the container to be filled and the pressing of a foot pedal transfers the powder to the container. The distributors state that a filling rate of twenty to thirty fillings per minute may be achieved for quantities from 20 mgm. to 1 gm. Larger fills (maximum 5 lb.) may be maintained at a rate of fifteen to twenty per minute, both at an accuracy of  $\pm 1\%$ . If necessary the guns may be operated under sterile conditions. The Lab gun cylinders range in diameter from ¼ in. to 6 in. and are available in aluminium, brass, stainless steel and Plexiglas. Table and Console floor models are available, both of which may be operated by unskilled workers.

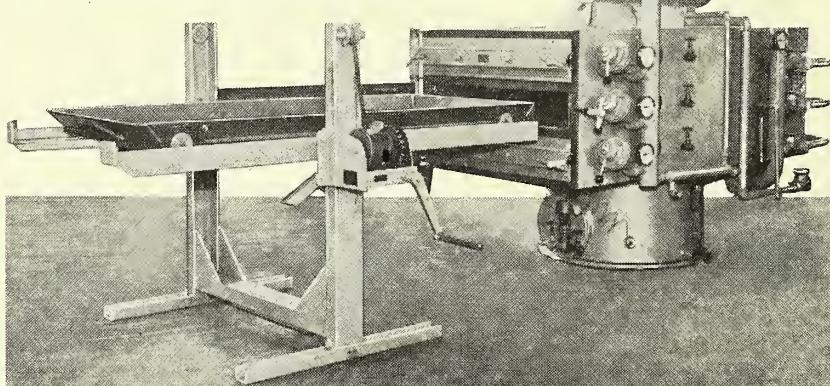
**Tablet Machines.**—The demand over the last few years for increased outputs from rotary tablet machines has continued to grow and machines are now wanted with outputs of several thousand tablets per minute. Manesty machines, Ltd., Speke, Liverpool, now have three such models in production and they will send advance details to anyone interested. The Manesty High-speed Rotary machines incorporate many revolutionary features including new mechanical feeding devices; a new

drive that is enclosed and cleaner in operation; improved accessibility facilitating maintenance and a new overload release to top and bottom punches. Tablets can be compressed at various positions in the die and the machine is adaptable for multilayer tablets. There is a tablet output gauge, pressure gauge and ammeter, etc. Lubrication is effected by a forced feed.

**Miniature Vibratory Feeder.**—Latest addition to the range of magnetic vibratory feeders manufactured by Sinex Engineering Co., Ltd., Feltham, Middlesex, is a miniature model with a range of output that can, by turning a control knob, be varied between zero and 1,500 lb. per hour (for a free-flowing material having a bulk density of about 100 lb. per cu. ft.). Its ability

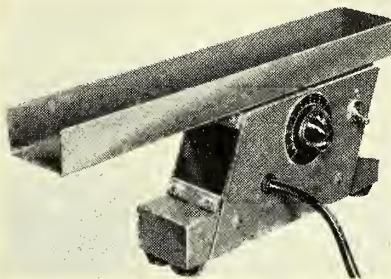


Filling cartons with powder from a bulk container using the Perry Accofil Lab Gun Console model.



The Calmic 51 vacuum dryer. The drying space is divided into small, completely independent compartments which are under vacuum within one minute of closing the door.

to give instantaneous cut-off enables the feeder to be used also in automatic weighing operations. The controller is normally mounted at one side of the casing but a separate control unit can



be supplied if desired. Other advantages of the feeder are that it contains no moving parts except springs, so that there is nothing to wear out or to require attention, and that the feed trough can be totally enclosed and dust-proofed when necessary.

**Folding Cartons.**—Offering to advise manufacturers about their production problems in the printing of collapsible cartons, Robert S. Maynard, Langham Court, Fielden Park, Manchester, 20, produce a machine that is quickly adapted to print a wide variety of cartons.

**Labelling Machines.**—Newman labelling machines, designed and manufactured by D. Trapow and Co., Ltd., 113 Regents Park Road, London, N.W.1, are widely used for affixing labels on an almost unending variety of containers. The new Newman vial and ampoule printing machine copes with containers from  $\frac{5}{16}$  in. to  $1\frac{3}{8}$  in. in diameter and up to  $4\frac{1}{2}$  in. long. The output ranges from 70 to 100 per minute, depending on the diameter of the container. Variable-speed control and a quick changeover are advantages to the user.

**Filling Machines.**—A new bench filling machine has been introduced by The Banister Street Works, Ltd., 18A De Beauvoir Road, London, N.1, makers of the Centrac range. Designed for handling small manufacturing batches it has a bulk container of 2-gall. capacity (though it may be varied to suit the filling problem). Filling heads are available to cope with pastes and creams or liquids, which may be filled into pots, jars, tubes, etc. The Centrac range of fillers includes a number of hand-operated machines having bulk containers of 2, 5 and 10-gall. capacities in gun-metal, stainless steel or tin-plate. Automatic and semi-automatic machines are also available, together with a fully automatic machine for filling, closing and crimping tubes.

**Drum Opening Tool.**—Not previously available in this country, but now manufactured here by Powell & Co., Burry Port, Carmarthens, South Wales, the Powell drum-opening tool

is designed to remove heads from steel drums, which it does quickly and cleanly even when the drums are of heavy-gauge material. A safety feature is that a clean cut, without ragged edges, is made close to the inside edge of the drum and, of course, the clumsy habit of using a hammer and chisel is obviated.

**Mixers.**—The Hobart range of mixers is claimed to cover the requirements of the cosmetic, pharmaceutical and allied industries. A new booklet "Hobart Mixers for Industry" is available on application to the makers, Hobart Manufacturing Co., Ltd., Hobart Corner, New Southgate, London, N.11.

**Bench Tableting Machine.**—A special feature of the new LBI-type bench tableting machine is its robustness. It produces tablets up to  $\frac{1}{16}$  in. diameter at a rate up to 6,500 tablets per hour. The maximum depth of fill is  $\frac{5}{8}$  in. The machine is driven by a  $\frac{1}{4}$ -horse power motor. Its overall dimensions are 35 in. high x 20 in. x 23 in. The manufacturers, S. W. Wilkinson & Co., Ltd., Western Road, Leicester, can also supply a cabinet stand with a cupboard and shelf to support the machine if required.

**Electrolytic Conductivity Cells.**—An application for electrolytic control equipment that is becoming increasingly important is the fully automatic regulation of the concentration of detergent solutions in dish and bottle-washing machines. The CCF conductivity measuring cell manufactured by Electronic Switchgear (London), Ltd., Works Road, Letchworth, Herts, has been designed to discharge that function. Other conductivity cells have been devised to continuously monitor the conductivity of wash and rinse waters.

**Fibreglass Panels.**—A range of fibreglass air-filter panels for use in air-conditioning plants has been produced by Vokes, Ltd., engineers, Henley Park, Guildford, Surrey. The panels offer the advantages of a throw-away filter (robust construction, maximum surface area, low binder content and efficient operation). They are claimed ideal where initial cost is a prime consideration, offering low resistance to air flow, and requiring minimum fan horsepower and no maintenance. Composed of low-density, resilient and non-felting glass-fibre matrix the filter material is resistant to most chemicals. Metal frames with patented quick-release spring clips are available for housing the panels.

**Terylene as Filter Fabric.**—The advantages of Terylene as a filtration fabric (resistant to heat, acids, oxidising agents and alkalis; wet and dry strengths; resistance to bacteria; resistance to abrasion and flexing, etc.) are described and illustrated in a booklet "Terylene for Filtration" obtainable from the fibres division of Imperial Chemical Industries, Ltd., Hookstone Road, Harrogate, Yorks. The booklet includes a buyers' guide for filter and press cloths.

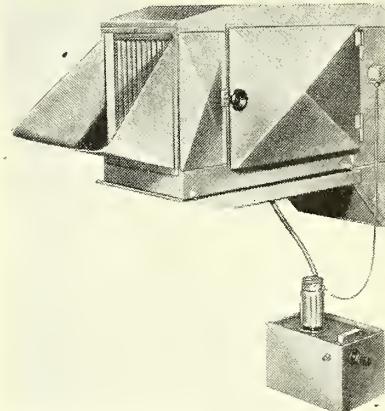
**Screens, Grids and Strainers.**—Endecotts (Filters), Ltd., who recently moved into a new and larger

building housing both offices and works at Lombard Road, London, S.W.19, recently produced a folder illustrating the grids, grilles, sieves, screens, etc., which they manufacture.

**Filter Aids.**—The British Ceca Co., Ltd., 175 Piccadilly, London, W.1, chemical manufacturers and engineers specialising in gas and liquid treatment, can now supply the Clarcel filter aids manufactured in France by their associated company Societe C.E.C.A. from their deposits of high-grade diatomaceous earth.

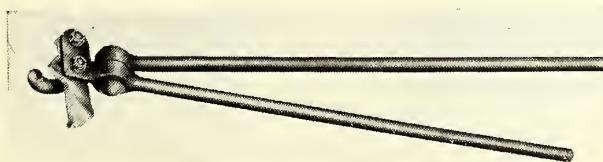
**Selling Agents in United Kingdom.**—Durham Raw Materials, Ltd., 1 Great Tower Street, London, E.C.3, have been appointed sole selling agents in the United Kingdom for the range of filter presses manufactured by F. H. Schule, Ltd., Hamburg, 26, Germany. Schule filter presses may be supplied to standard pattern or tailor-made for industrial filtration application, particularly in the chemical industry. They are of two basic types: Flush plate and frame presses, for use when the filter cake is of uniform thickness and porosity; and recessed-plate presses, for use where solids are subject to blockage.

**Air Conditioning.**—Designed to maintain an overall even humidity for a volume of up to 50,000 cu. ft., the Model 1500 turbo air-conditioning



unit manufactured by William Furness, Ltd., 2 Melbourne Place, Bradford, 5, Yorks, works in conjunction with a humidistat. The machine is fully automatic and maintains a preset humidity within  $\pm 2\%$ .

**Fume-extractor Fan.**—British Manufactured Bearings Co., Ltd., High Street, Crawley, Sussex, have developed a space-saving fume-extractor fan of new design. Its straight-through airflow is claimed to have a performance comparable with that of the standard type of centrifugal fan using either multi-vane or paddle blade units. The fan may be had in polyvinyl chloride for use where acid resistance is desired. The company also manufacture the Bassaire "man cleaner," a unit that is, in effect, an intermediate stage between locker or changing room and "clean room." Factory operatives change into special clothing and pass into the "man cleaner" chamber, where air-jets and suction-points draw off any remaining dust before the workers pass on into the "clean room."



# INVENTIVENESS IN THE LABORATORY

## "Fine" chemists demonstrate novel techniques

THE fine chemicals group of the Society of Chemical Industry recently staged in the chemical department of Birkbeck College, London, W.C.1, an exhibition of laboratory apparatus and demonstration of techniques.

The chemical laboratory staff of MAY & BAKER, LTD., Dagenham, Essex, for example, showed a novel improvement in the design of the orthodox tap-attached water pump. A corkscrew-shaped section of solid glass inserted, free, into the water-carrying tube immediately above the water outlet jet introduces a vortex effect into the water flow. In use the pump, after seven minutes on normal low-pressure water supply, exerts a pressure of 10 mm. of mercury. Boosted-pressure water improves its performance to 8 mm. of mercury in five minutes.

Another unit shown was an azeotropic distillation apparatus incorporating interchangeable separators to cover a range of specific-gravity ratios. A liquid/liquid extractor on display was for use with "light" and "heavy" solvents, and a laboratory drying oven shown incorporated the heating elements under each of the drying trays: it produces its own convection current of air. The oven shown gave, from the lowest shelf upwards, shelf temperatures of 35°C., 55°C., 85°C. and 80°C. A new design of bosshead (available from the City Engineering Co., Ltd., Boreham Wood, Herts), was designed for apparatus in which a reaction mixture requires stirring.

### Ingenious Ideas

The technical staff of STAFFORD ALLEN & SONS, LTD., Wharf Road, London, N.1, displayed a number of ingenious items they had developed for everyday use. To detect contamination of crude drugs with iron filings, they use an electromagnet powered by a 4½-volt battery inserted through and sealed into the lid of a 2-oz. ointment jar. The magnet "holds" iron contamination if the dry sample is shaken inside the glass container. Time formerly wasted in waiting for emulsions to separate during alkaloidal assays is saved by using separators adapted to be inserted into the cups of a laboratory centrifuge. A warning device for attachment to distillation apparatus comprises a receiver flask clamped upon a free-swinging pivoted metal arm with counterweight. Before distillation commences the counterweight is adjusted against a pre-determined weight/volume of distillate, and when the required quantity of distillate has been accepted by the receiving flask, the swing of the pivoted arm completes the circuit of a battery-operated alarm bell, giving warning to the operator. For the continuous extraction of solids in which the use of cold solvent is desirable, an apparatus not unlike an orthodox Soxhlet extractor carries the vapour from the boiling solvent up a separate condenser and allows the cold condensate to fall on to the sample, the overflow returning to the distillation flask. Another unit shown

carries a high-pressure steam tube into a distillation flask, thus permitting vacuum distillation by controlled steam injection.

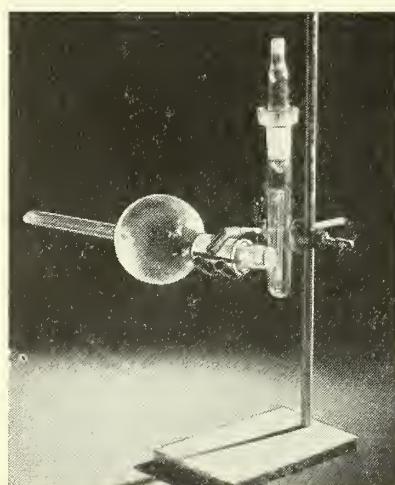
GLAXO LABORATORIES, LTD., Greenford Road, Greenford, Middx, demonstrated a continuous-phase decanter and an irradiation unit. Using fluorescent tubes that could be varied according to the photosensitivity of a test compound, the sample in the appropriate container was "nested" in the centre of a circle of the tubes.

The research staff of BOOTS PURE DRUG CO., LTD., Nottingham, demonstrated a unit they call a "pH Stat." The apparatus maintains a constant pH in an experimental cell and therefore may be used for the titration of acids or bases, determination of the hydrolysis of esters or the rate of enzymic digestions, etc. Its functioning relies upon modification of the electro-motive force resulting from a change of pH which it amplifies. A syringe, activated by an electric motor, and containing the acid or alkaline reagent, injects the required amount to restore the pH to the previously selected value. A recording system gives the amount of reagent added per minute.

A two-way still head shown by Dr. M. E. Peel (research division, ALLEN & HANBURY'S, LTD., Ware, Herts.) enables a clean dry condensing system to be selected without interrupting the distillation. It is useful for preparing acid chlorides free from traces of thionyl chloride and for distilling a product that has been dried azeotropically.

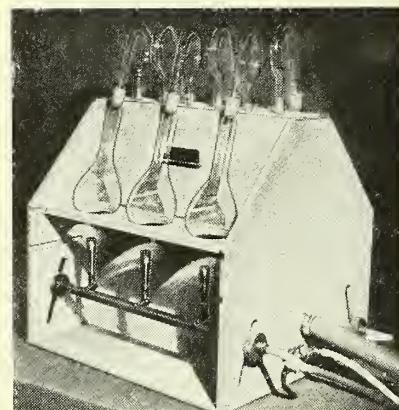
Dr. J. H. Hunt (also of A. & H.) demonstrated a semi-micro distillation apparatus that can be made up from standard joints; keeps the distillate path short to minimise holdup; has four receivers that fit conveniently into a size small enough to allow reliable rotation; takes standard 3 x ½-in. test-tubes as receivers; and has a receiver assembly that can be used with other distilling vessels.

The LOUGHBOROUGH GLASS CO., LTD., showed a micro combustion apparatus



Microcombustion apparatus (Loughborough Glass Co., Ltd.).

(patent applied for) for the rapid combustion of organic compounds, including volatile ones, for analysis. The company also demonstrated its micro-nitrogen apparatus for the rapid estimation of nitrogen; the apparatus consists of two concentric combustion tubes in quartz, the outside tube ending in a cone.



Nitrogen digestion apparatus (NDA) (Loughborough Glass Co., Ltd., Loughborough, Leics).

Nitrogen estimation (Kjeldahl) was also demonstrated using the company's NDA nitrogen digestion apparatus, designed to carry out multiple Kjeldahl digestions on the bench without fume cupboard. It consists of a stand constructed in an asbestos-cement heat-resistant composition, accommodating up to six Kjeldahl flasks by means of adjustable shelves and burners, each with independent tap inlet. For the removal of acid fumes a multiple water spray unit constructed in polythene is provided. Acid fumes from each flask are led by means of a glass duct over a water spray and into a polythene tank. The solution then flows to waste.

Messrs. W. E. Massingham and J. H. Turnbull (chemistry department, Birmingham University), showed an experimental photosynthesis unit, essentially a system for the irradiation of a set of experimental solutions, by visible light.

INTERNATIONAL CHEMICAL CO., LTD., showed a multiple melting-point apparatus designed to permit simultaneous observation of the melting-points of several samples. It consists of an aluminium block in which a slot (the heating chamber) has been milled. The slot is closed by glass windows and ten small holes have been drilled to hold the capillary tubes. The block is heated by two cylindrical elements.

### CHROMATOGRAPHY

#### A display of equipment

BAIRD & Tatlock, Ltd., are staging at 14 St. Cross Street, E.C.1, on April 23, a display of their full range of chromatographic and electro-kinetic equipment and invite customers and others who are interested to attend. There are sessions at 10.30 a.m. and 2.30 p.m. Intending visitors are asked to notify the company in advance. Technical leaflets are available.



# The CHEMIST AND DRUGGIST

For Retailer, Wholesaler and Manufacturer

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## Bitter-sweet

THAT the Chancellor of the Exchequer decided to alter purchase tax rates once again in the Budget will cause no surprise to most retail pharmacists. Such changes have now become a hardy annual with a bitter fruit to the retailer who must slash his prices forthwith and bear the tax cut out of his profits. Although the reduction in the rates this year is not so great as it was last year (cosmetics then dropped from 90 per cent. to 60 per cent. and photographic goods from 60 per cent. to 30 per cent.) the new rates apply to a much wider range, in fact to all chargeable goods that chemists handle. How much chemists will stand to lose by the reduction depends on how careful they have been with their ordering over the past three months. One firm with thirty pharmacy branches in the London area had its gross profits halved for 1958 through last year's tax changes, the loss being estimated at £9,000, and that despite stocks being kept to a minimum in anticipation of such a change.

The lot to be borne by the retailer is heavy, but not so great as it would have been had the Chancellor bowed to the clamour from some quarters that all chargeable goods should bear the same rate. That is not to say that we agree with the present discriminatory rates which, as the *Manchester Guardian* puts it, "cause arbitrary distortions and make people pay absurd prices for different goods according to some bureaucratic scale of social values worked out many years ago." But unless or until the Customs and Excise can agree with retailers on some measure of reimbursement for the losses on stocks held, it is certainly in the interests of retailers that tax reforms be brought in gradually.

An Excise licence to deal in medicated wines will now cost only about one-half of its former price. The reduction in income-tax scales will be welcomed by all sections of the community but will make little difference to those earning less than £20 a week.

The changes in allowances for investment for industry make no difference to the tax allowance for the year in which a new machine is acquired. Only in a later year will benefit be received.

## Executive Councils as Tribunals

EXECUTIVE Councils have received guidance from the Ministry of Health on the Tribunals and Inquiries Act, 1958, which came into operation on April 1. Section 12 of the Act requires the supply, on request, of reasons for the decisions of tribunals and applies to decisions by Executive Councils. Service committees

are exempted from the new Act because already, under the National Health Service (Service Committees and Tribunal) Regulations, 1956, they are required to give statements of the reasons for their findings. However, the Minister of Health has asked all service committees to ensure that their reports contain a statement of the ascertained facts and the reasons for their recommendations. He considers that Executive Councils, in exercising their quasi-judicial functions, should issue reasoned decisions as a matter of course, and not merely on a specific request as required by the new Act. When an Executive Council obtains a report from a service committee under the Service Committees and Tribunal Regulations, it is bound by the committee's finding of fact. If it agrees with the committee's inferences and recommendations a statement to that effect would appear sufficient. Where the inferences or recommendations are not accepted, the Council should state how and why it differs from the committee. Although Executive Councils are exempted from the Tribunals and Inquiries Act so far as it relates to their executive functions, the Minister considers it desirable that they should provide reasoned decisions as to determinations under the National Health Service (General Medical and Pharmaceutical Services) Regulations, 1954.

## Interdependent

THAT the sciences are interdependent becomes more patent as knowledge becomes greater and more widespread. So, too, are the applications of science and the industry that derives from them. Advances in electrical engineering, for example, are quickly ingested by those engaged in the fields to which most of our readers are accustomed, namely pharmacy and medicine. The newer subject of electronics, while still in a much earlier stage of development, is already being widely applied in the pharmaceutical industry.

In the office, machine accounting involving electronics is making itself apparent to retailers in new and unfamiliar styles of invoices, etc. In the factory, where tablet counting is already carried on at amazing speeds, further developments in electronics hold out the promise of creating new records. In the chemical plant as an ever-watchful "process controller," and in the development laboratory to assist in solving abstruse mathematical problems relating to plant design, electronics is establishing itself as a powerful automaton.

But pharmacy has contributed its own share of knowledge to other industries. Those concerned with the latest developments in the plastics industry have, for example, been able to draw upon the knowledge gained by tablet-machine manufacturers, who now offer specialised plant capable of producing very large "compressed products" (hardly tablets in the medicinal sense), measuring up to 2 in. diameter by 2 in. in thickness.

Those aspects of the interdependence of industry and science are brought out in this annual machinery number of the *C. & D.*, where the emphasis is on the applications of new methods and new materials in pharmaceutical manufacture.

IT MAY BE DIFFERENT IN POLAND: Comparative formulas for standard preparations in foreign pharmacopeias are only one aspect of the comprehensive pharmaceutical material in "Pharmaceutical Formulas, Vol. I" (with Supplement, 41s. 11d. post free, from *C. & D.* office).

# “OPEN SHOP”

AN UNSCRIPTED COMMENTARY ON THE  
SPECIAL PROBLEMS OF THE PHARMACIST  
IN RETAIL PRACTICE

E. C. TENNER

**T**HIS is the season of “P. and D.” In the uncertainty at Budget time, just after the taxes have been—by mighty effort—paid, there is a natural tendency to think “It doesn’t look *too* bad, I’ll save a bit by letting it go another year” and probably it *would* go another year without harming the fabric. But painting and decorating protect not only the fabric but the “goodwill” of the business carried on within it. An important impression is made on customers by the style and condition of one’s painting and decorating, and that makes P. and D. an advertisement. It attracts or repels trade. It tells the beholder a great deal about the sort of trader who occupies the premises. But is it telling the truth? Is yours letting you down? Is it doing you justice? Does it express your character? There is only one person in this world who knows everything about you and your ambitions and aims. That person is you. So take yourself out of your shop and go across the road and look back at the place in which you carry on your life work. Try and estimate the sort of business that the appearance describes. Try and estimate from the appearance the sort of pharmacist who runs it. Just possibly you may recognise your own business and yourself, but it is also quite possible that you may not. Is your colour policy modern and good? Is your facia cluttered up with useless announcements? Beautiful examples of the sign-writer’s art though they may be, they can spoil an otherwise tidy appearance. Do you carry the colouring and style of lettering that you use right through your business? They can become a valuable link between you and the customers. They should never be lightly chosen and only rarely varied when there is good reason.

Perhaps you’ve thrashed all this out years ago and are one of those wise ones who budget for a fixed expenditure each spring on P. and D. Perhaps you have a fixed rota, doing this this year, and that next year; perhaps covering both internal and external decorations regularly every three or four years. Seeing that the shop is so important a factor in the production of turnover, a servicing scheme of the sort I’ve suggested is a “must.” It is undoubtedly the most productive advertisement you can buy. The installation of a completely new shopfront is an extreme example of such servicing. Fashion in selling changes fast these days but, even apart from fashion, there is the need for efficiency and to keep pace with one’s neighbours. A shopfront designed as “modern” a generation ago can be a costly encumbrance under present-day conditions.

With wages high as they are, staff must be kept at a minimum, so useless work must be cut out. A great deal of window dressing and shop dusting is inefficient and time wasting. A shop and shopfront must nowadays be designed to save staff-time and space. Doors must be designed to pass customers readily into the shop rather than to keep them out. If you need more turnover, cross the road and look back at your shop. Maybe you’ll spot some way to get what you want without installing a new front. On the other hand you may go out there expecting to make sure you need to spend £100 on P. and D. and decide instead to spend £900 on a new shopfront. If you do that, try to look at the shopfront as an expendable machine that wears out every thirty years. If you spread the cost that way it’s not so dreadful, and anyway your business deserves it!



## *A False Premise*

The Hertford Branch resolution tabled for discussion at the Branch Representatives’ meeting in May advocates the separation of general trading from pharmacy. It would seem to be based on the false premise that there is something unprofessional about selling. There is not. Our most closely allied professions—medicine, dentistry and veterinary medicine—have always been most persistent in maintaining, through legislation, their right to sell or supply poisons and medicines. The professionalism of those colleagues is unquestioned. The greater proportion of “pharmacy” practised in this country has for more than a hundred years been based on the principle that the “front counter” shares the costs of the establishment with “the dispensary.” Each section is complementary to the other. Even the National Health Service has not changed that. The advent of the departmental store, and more recently the supermarket, are simply the retailers’ answer to the public desire to make as many purchases as possible with as little exertion and cost as may be necessary. The modern trend of selling in any retail shop, including a pharmacy, is to attempt to sell any article that can be conveniently stocked, understood and demonstrated to a would-be purchaser, and made to pay a share of overhead expenses. By reason of his scientific training the pharmacist is in a deservedly advantageous position when it comes to understanding modern preparations, machines and appliances, and passing on to his customers his judgments and advice, so his “front counter” may be expected to include a wide variety of goods he is well qualified to sell. Those are the facts of life in 1959. Until there is legislation restricting the sale of recommended medicines to authorised sellers of poisons on registered premises, the authorised seller of poisons is bound to endeavour to retaliate in self defence, and to try and increase his turnover by selling anything he thinks his customers may wish to buy from him. In the event it is the customer who decides what shall be sold in a pharmacy. Of course, there is a great deal of regrettable snobbery among shopkeepers. The Hertford resolution confuses professionalism with snobbery. Professionalism is behaving always in accord with a high standard of ethics and placing the service of the community before self-interest. The pharmacist has much more opportunity of exercising professionalism than most other shopkeepers. Snobbery is a display of ignorance. I hope the resolution will be lost.

## RECENT RESEARCH

### “MOST POWERFUL” BLOCKING AGENT

COLLIER and co-workers (*Nature*, 1958, 182, 1424) have endeavoured to combine the good properties of suxamethonium and laudexium (laudalissin). Working in the research division of Allen & Hanburys, Ltd., they prepared symmetrical bis-esters, unsymmetrical mono-esters, symmetrical bis-amides and their urea derivatives. One compound, described as the unsymmetrical mono-ester No. 43, is recorded as being seven times as active as suxamethonium in the cat. It had long duration of action, did not show antagonism to neostigmine, and was tolerated in large doses. In fact it “appears to be one of the most powerful synthetic neuromuscular blocking agents known.”

# IRON

## AND OTHER HÆMOPOIETIC DRUGS

S. J. HOPKINS, F.P.S.

*Concluded from THE CHEMIST AND DRUGGIST, April 4, p. 369.*

### *Pernicious Anæmia*

Iron-deficiency anæmia is characterised by a low haemoglobin level and a reduction in the size, but not always the number, of the red blood cells, and such anæmia is therefore described as hypochromic and microcytic. In pernicious anæmia (in which there is no iron deficiency) there is a reduction in the number of red cells, but many of those cells are larger than normal, and the anæmia is termed macrocytic. The bone marrow, from which the blood cells are derived, also shows changes, and contains many immature cells of increased size (megaloblasts). Those megaloblasts are also found in other forms of anæmia, and the generic name of megaloblastic anæmia is sometimes applied to that group of blood disorders.

Pernicious or Addisonian anæmia is a deficiency disease caused by the absence of a specific substance formed by the normal gastric mucosa. The substance, known as the intrinsic factor, is essential for the absorption of an extrinsic factor present in the diet. The factor is now known as vitamin B<sub>12</sub> or cyanocobalamin, and the history of its isolation is an example of the long period that may elapse between an initial observation and the final proof of its validity. It has been known since the nineteenth century that pernicious anæmia was associated with some dysfunction of the gastric mucosa and an impaired absorption of dietary factors. In 1926 it was discovered that eating large quantities of raw or lightly cooked liver could bring about a remission of the disease, and active extracts of liver suitable for injection were soon widely used in the control of pernicious anæmia.

An intensive search was made for the specific anti-anæmia factor present in liver, and it was soon apparent that the unknown substance was very potent, as highly refined liver extracts, containing only a few mgm. of extractive, were still extremely effective therapeutic substances. Fortunately for the investigators, who might otherwise have been daunted by the magnitude of the task, they were unaware that a ton of liver might contain as little as 250 mgm. of the specific anti-anæmia factor, which was eventually isolated in 1948, and is now familiar as cyanocobalamin or vitamin B<sub>12</sub>. It has the empirical formula C<sub>63</sub>H<sub>88</sub>O<sub>14</sub>N<sub>11</sub>P Co, and is one of the few cobalt compounds to be used therapeutically. Commercial supplies are not obtained from liver, as the vitamin occurs as a metabolic by-product in the nutrient media in which the mould streptomyces is grown for the production of streptomycin. Cyanocobalamin has a specific place in the treatment of pernicious anæmia, as in small doses it restores the blood picture to normal and relieves the protean symptoms of the disease. In particular, it halts the degeneration of the spinal cord, and the consequent neurological complications of pernicious anæmia, though doses up to 1,000 µgm. may be necessary.

The drug is normally given by intramuscular injection, and its success in limiting nerve damage in pernicious anæmia has led to its use in neuropathies such as trigeminal neuralgia and herpes zoster, which are not associated with anæmia.

### *Intrinsic Factor*

Cyanocobalamin is much less effective orally than when given by injection, and that lack of effect is due to the

absence in pernicious-anæmia patients of an intrinsic factor, elaborated by the normal gastric mucosa and present in normal gastric juice. For that reason desiccated hog stomach has been used in the treatment of pernicious anæmia, since it contains the intrinsic factor and permits the absorption of the vitamin B<sub>12</sub> either present in the diet or given as an oral supplement. Biopar and Bifactor are commercial products for oral use, both containing both the intrinsic factor and cyanocobalamin, but the exact mechanism of the process of absorption of the vitamin awaits elucidation.

It is known that natural vitamin B<sub>12</sub> is normally bound to a protein fraction, that combination being modified in some way before absorption can take place. The vitamin present in crude liver extract, for example, is bound in some way, though not to a protein. It has been suggested that the true anti-pernicious anæmia principle is in fact a low-molecular-weight complex of cyanocobalamin, obtained by partial digestion of the protein fraction of dietary vitamin B<sub>12</sub>, and which is absorbed as such.

Pernicious-anæmia patients are unable to effect that partial breakdown of the protein-vitamin B<sub>12</sub> fraction, and the variable results that have been obtained when using preparations of the intrinsic factor may be ascribed to variations in the molecular size of the protein fragments carrying the vitamin.

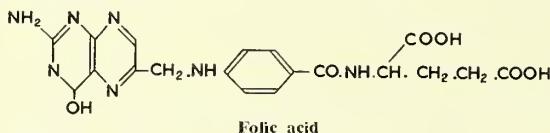
More recently, attempts have been made to produce an orally active complex of vitamin B<sub>12</sub>, and such a product is now available under the name Distivit. That speciality is a purified peptide complex of vitamin B<sub>12</sub>, of low molecular weight and apparently absorbed without further degradation of the peptide moiety. Peptides are, of course, the partial breakdown products of proteins, and the peptide fragment present in Distivit contains a number of well-known aminoacids, including glutamic acid, glycine, cysteine, valine, histidine and many others. Some of those not only appear to facilitate the absorption of the vitamin, but are also essential for the normal development of the red blood cells.

The dose of Distivit varies to some extent with the type of megaloblastic anæmia, and is expressed in terms of combined cyanocobalamin. In pernicious anæmia doses of 300 µgm. are given daily for ten days, followed by 100 µgm. daily until the blood picture has returned to normal. The higher doses should be continued if any spinal cord damage has occurred. In nutritional macrocytic anæmia, a daily dose of 100 µgm. is effective. In tropical sprue doses of 300 µgm. are given until the blood picture has returned to normal, when a maintenance dose of 100 µgm. should prove adequate.

### *Folic Acid*

No consideration of haemopoietic drugs would be complete without reference to folic or pteroylglutamic acid, although its use in pernicious anæmia is not now advised. The history of the discovery of the substance illustrates clearly how lines of research that are apparently unrelated may culminate at a common point. In 1931 it was reported that a macrocytic anæmia common in Bombay could be cured with yeast extracts. It was later shown that that anæmia also responded to crude liver extract, but not to the fraction causing a remission of pernicious anæmia. About ten years later, during work on the nutritional requirements

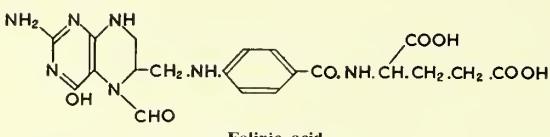
of bacteria, a substance essential for the growth of *Lactobacillus casei* was isolated from liver and from spinach. The substance was soon recognised as having similar nutritional properties to those obtained earlier from yeast. The small yield of unknown substance from natural sources delayed further research until it was found that an organism of the corynebacterium group (to which the bacterium responsible for diphtheria belongs) formed in culture a factor that also supported the growth of *Lactobacillus casei*. With the increased yield of the unknown substance, it was soon identified as a conjugate of pteroyl glutamic acid with the following structure:—



Naturally occurring forms of folic acid differ slightly according to their source in the number of glutamic acid groups present, but the synthetic substance, which is now used, has the structure indicated above. The compound is highly effective in nutritional megaloblastic anaemias, and is the drug of choice in tropical sprue.

In pernicious anaemia it may produce results that appear at first as good as those effected by vitamin B<sub>12</sub> or liver extracts, but that is true only so far as the blood picture is concerned. Folic acid does not prevent and cannot halt damage to the spinal cord, and it may even precipitate a severe and irreversible neurological degeneration as the blood count improves. For that reason folic acid is no longer used alone in the treatment of pernicious anaemia.

In conclusion, it is of interest to recall that folic acid plays a fundamental part in general cell activity, particularly in nucleic acid metabolism and cell division. The first stage in that process is the conversion of folic acid into folinic acid, which has the following structure:—



The process is of great biological and therapeutic interest, as it is at the point at which it takes place that folic acid antagonists exert their action. Those antagonists are used clinically in the treatment of acute leukaemia, and the study of such antimetabolites is of fundamental biological importance. Substances with an inhibitory action on cell growth are valuable tools in research on the chemotherapy of cancer, and that aspect of folic acid chemistry is of increasing significance, and may lead the way to still more rewarding lines of research.

## Onward from Galen

### A CURRENT CAUSERIE

VOLUME 1, No. 1 of the *Journal of Medicinal and Pharmaceutical Chemistry* (see C. & D., January 10, p. 40) has now made its appearance. Printing difficulties delayed its issue, for it was due in February, but they were eventually overcome. Its international character, no less than its scientific content, is reflected in its page size: 22½ cm. x 15 cm. (8½ x 5½ in.). A useful feature of its make-up is that each paper starts on a right-hand page, permitting the removal of any individual contribution without prejudice to the remainder. The eight research contributions of the first issue come from Belgium, France, Great Britain, Switzerland and the United States of America. All of them on essentially chemical/pharmacological subjects, the first is a review and the second introduces a new class of antispasmodics. Two contributions concern compounds with effects upon the central nervous system, the first relating to a

member of the group of 5,5-disubstituted barbituric acids that has stimulant action and the second to an ingredient of *Piper methysticum*, also known as kava, a common Polynesian shrub renowned in ancient times for its stimulant properties and anxiety-reducing effects. Histamine antagonists, compounds related to pethidine, ganglionic blocking and stimulating organophosphorous compounds, and stereochemical studies of alpha- and beta-prodine type compounds complete the subjects. As the first truly international outlet for pharmaceutical chemistry the new periodical has made a promising start and it is understood that work is sufficiently advanced on the second and third issues to hold out every prospect that they will appear on time.

★

GOLFERS who regularly participate in the British Pharmaceutical Conference's golf tournament look like meeting tough opposition this year. Two pharmacist-members of the staff of the Wellcome Foundation, Ltd. (Messrs. L. J. Donnithorne and H. A. Cocking), were recently concerned in a remarkable coincidence on the golf course. During a week-end four-ball game at their club, Moor Park, in which they were opposing each other, Mr. Donnithorne did the eighteenth hole on the high course in one. Within less than a week (on Good Friday) with the two this time playing as partners, Mr. Cocking repeated the feat at the thirteenth hole on the west course. (A third player was involved in both rounds.) One, if not both, of the partners in the unusual happening will be making an attack on the Edmund White trophy in September and it is rumoured they will be asking for the flag to be attended at all short holes on the Meyrick Park course.

## FIFTY YEARS AGO

### “THE LADY PHARMACISTS”

From the C. & D., April 10, 1909

THE London Chemists' Association succeeded in getting together a representative gathering of retail pharmacists and wholesale druggists to do honour to Mr. Idris and Mr. Winfrey for the part they took in promoting the passing of this important measure [the Poisons and Pharmacy Act]

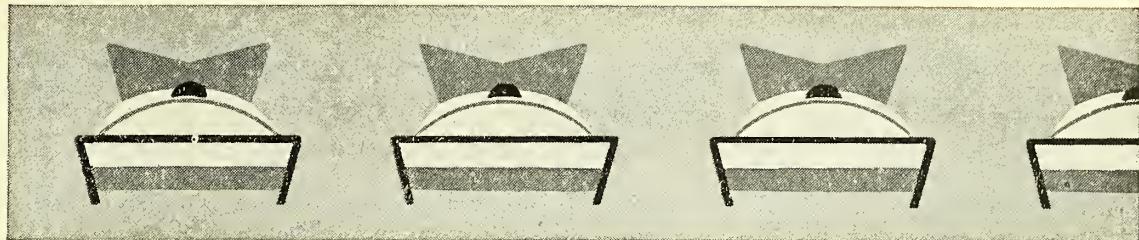
Mr. Peter MacEwan [Editor, THE CHEMIST AND DRUGGIST], in giving the toast of “The Lady Pharmacists,” alluded to the fact that this was the first occasion on which such a toast had been proposed at a public dinner in that Hall. “There are present,” he said, “ladies who have

distinguished themselves far beyond what any man has done in pharmacy during the past year.” He referred especially to Miss Gertrude Wren. Among the lady pharmacists present were Miss Adah Falconer, Mrs. Alice Freke, Miss Ethel K. Hughes, Mrs. Smith (née Lassasie), and Miss Margaret E. Buchanan, all of whom had attended to join in the hearty thanks to Mr. Idris and Mr. Winfrey for what they had done for pharmacists of all grades in this country.

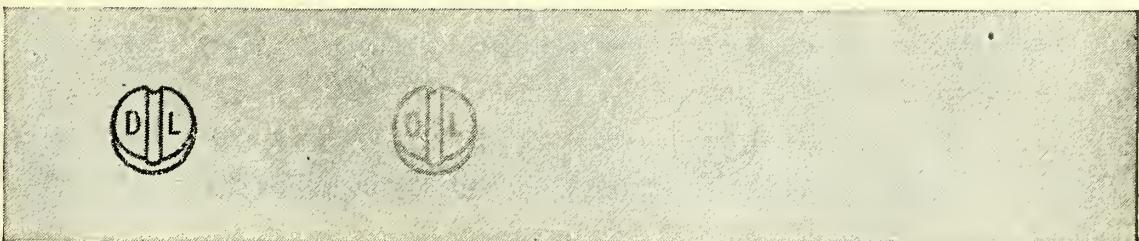
Miss M. E. Buchanan replied on behalf of women pharmacists, and especially the Women Pharmacists' Association. “It is,” she said, “extremely gratifying to be identified with the expressions of thanks to Mr. Winfrey and Mr. Idris,” who had done so much for them. (Loud cheers.)



**sleep becomes a habit**



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'Distaval' is a potent but safe hypnotic which brings sleep to the disturbed patient. Because it does not create addiction, 'Distaval' helps to restore the natural pattern of sleep and may be used, when necessary or desirable, to release patients from dependence on barbiturates.

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25 mg. scored tablets in tube of 24 and bottles of 100 and 500

Basic cost to N.H.S. of 12 tablets from dispensing pack of 100: 'Distaval'—1s. Od. 'Distaval' Forte—2s. 8d.

**DOSAGE AS A HYPNOTIC** — Now exempt from Purchase Tax.

Infants and Children: 25-50 mg. at bedtime.

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100 mg. scored tablets in tube of 12 and bottle of 100

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**DOSAGE AS A HYPNOTIC** — Now exempt from Purchase Tax.

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*Dosage requirements may vary and should be adjusted to the individual needs of the patient.*

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α-Phthalimidoglutarimide  
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**the new and remarkably safe sedative and hypnotic**

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PPH 28/58



## Brāsivol

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Brāsivol offers a new concept in the treatment of acne—superficial graded abrasion—by keeping the skin dry and minutely desquamated in a way which is satisfying and acceptable to the patient.

## Brāsivol

The graded abrasive cleanser for ACNE in three grades:—

**No. 1** fine

**No. 2** medium

**No. 3** coarse, in jars of approximately one month's treatment.

*Retail Price 15/8 per jar, plus 2/8 Purchase Tax. Trade Price 125/- per doz., plus 32/- Purchase Tax*

Denver Laboratories Ltd., 12 Carlisle Road, London, N.W.9. Tel: COLindale 6701

## TRADE REPORT

The prices given are those obtained by importers or manufacturers for bulk quantities or original packages. Various charges have to be added whereby values are in many instances augmented before wholesale dealers receive the goods into stock. Crude drugs and essential oils vary greatly in quality and higher prices are charged for selected qualities.

LONDON, APRIL 8: Helped by a continued scarcity of MENTHOL from the Far East, Brazilian material was sharply advanced during the week, with spot holders offering at 36s. 6d. per lb., against 35s. in the previous week.

Both ACACIA and KARAYA GUMS were marked up on the week's trading. Among AROMATIC SEEDS, Spanish ANISE and Dutch CARAWAY tended to be easier. TURMERIC was upwards of 5s. per cwt. dearer on the spot. Portuguese ERGOT was quoted much dearer for reasons that are obscure; no East European material has been offered for sometime.

The most important features of the week however occurred in ESSENTIAL OILS where many prices showed sharp gains on previous levels. Brazilian PEPPERMINT at 10s. 6d. showed an increase of 1s. 9d. per lb.; Bourbon GERANIUM at 132s. 6d. per lb. was up 17s. 6d. while Penang PATCHOULI was dearer by 3s. 6d. PETITGRAIN by one shilling and LEMONGRASS three-half-pence. Devastation in Madagascar caused by recent floods and hurricanes has made the position of CLOVE LEAF OIL uncertain and spot or forward quotations were not available. VANILLA BEANS were likewise affected.

The latest estimate of the OLIVE OIL crop in the 1958-59 season in Spain is 300,000 tons compared with 279,000 tons in 1957-8 and 378,000 in 1956-7. Portugal's oil harvest also proved even worse than feared earlier and is not expected to exceed 54 per cent. of the 1957 figure, meanwhile Algeria also reports lower yields.

## Pharmaceutical Chemicals

ALOIN.—Spot offers (14-lb. lots) are 28s. 9d. per lb.

AMMONIUM CHLORIDE.—Makers quote 1-cwt. lots of B.P. powder at 90s. per cwt. and are quoting extra-pure crystals at 126s.

BENZAMINE.—16-oz. lots of LACTATE are 15s. 3d. per oz. and HYDROCHLORIDE 16s. 3d. per oz.

BENZOIC ACID.—1-cwt. lots are 2s. 11½d. per lb.; and SODIUM SALT is 2s. 9½d. per lb. in 1-cwt. lots.

BISMUTH SALTS.—The following are the prices (per lb.) in largest bulk packages:—

	28 lb. to 1 cwt.	1 cwt.	5 cwt.
	s. d.	s. d.	s. d.
CARBONATE	22 3	21 9	21 4
SALICYLATE	21 9	21 4	20 10
SUBGALLATE	21 1	20 8	20 2
SUBNITRATE	20 5	20 0	19 6

The 1-cwt. rates (per lb.) for other salts are:—CITRATE, B.P.C., 22s. 8d.; NITRATE, crystals, 14s. 8d.; OXIDE, B.P.C., 27s. 7d.; OXYCHLORIDE, B.P., 27s. 9d.; OXYIODOGALLATE, B.P.C., 28s. 9d.; SODIUM TARTRATE, 35s. 6d.; and TRIBROMPHENATE, B.P.C., 26s. 9d.

CHLOROCRESOL.—Pharmaceutical quality is quoted at 7s. 2d. per lb. for 1-cwt. lots.

CHLOROXYLENOL.—B.P. quality is 5s. 3d. per lb. for 1-cwt. lots and 5s. 1d. for 10-cwt. lots.

CREAM OF TARTAR.—Rates for the home trade:—1-ton lots, 231s. per cwt.; 10-cwt., 232s.; 5-9-cwt., 233s.; 2-4-cwt., 234s.; 1-cwt., 235s.

DICOPHANE (DDT).—Prices are as follows:—1-cwt. lots 3s. 2d. per lb.; 5-cwt. 3s. 0½d.; 1-ton, 2s. 11d.

EPHEDRINE.—ALKALOID, is nominally 6s. 6d. per oz., SULPHATE, 4s. and HYDROCHLORIDE, 3s. 3d. per oz.

GALLIC ACID.—B.P. is 10s. 7d. per lb. for 1-cwt. lots. Technical grade is 9s. 9d. per lb.

HYDROCYANIC ACID.—Dilute B.P.C. is from 3s. 2d. to 4s. per litre, as to quantity; Scheels is from 3s. 10d. to 4s. 9d.

HYDROGEN PEROXIDE.—27.5 per cent. (by weight), £119 per ton; 35 per cent., £143 in returnable carboys.

HYDROQUINONE.—Quotations for 1-cwt. lots are 11s. 6d. per lb. or 25s. 4d. per kilo.

HYPOPHOSPHITES.—Prices per lb. are:—

	7 lb.	28 lb.	1 cwt.
	s. d.	s. d.	s. d.
CALCIUM, B.P.C.	6 9	6 4	5 11
IRON, B.P.C.	13 9	13 3	12 9
MAGNESIUM	11 6	11 1	10 8
MAGNESIUM, B.P.C.	13 11	13 5	12 11
POTASSIUM, B.P.C.	9 3	8 10	8 5
SODIUM, B.P.C.	7 7	7 2	6 9

MAGNESIUM CARBONATE.—Minimum bulk rate for LIGHT is 121s. per cwt.; HEAVY is 160s. per cwt. for 1-cwt. lots and about 130s. per cwt. for 1-ton lots.

MAGNESIUM CHLORIDE.—One-cwt. lots are quoted at 1s. 10d. per lb.; 5-cwt., 1s. 7d.

MAGNESIUM HYDROXIDE.—Makers' prices for B.P.C. are 1-cwt. lots, 3s. 5d. per lb. and 1-ton, 3s. 2d. per lb.

MAGNESIUM OXIDE, B.P.—Bulk rates are as follows:—LIGHT, 3s. 2d. per lb., and HEAVY, 5s. 10d. per lb.

MAGNESIUM PEROXIDE.—Price (per lb.) for 1-cwt. lots of B.P.C. (15 per cent.) is 3s. 11d.

MAGNESIUM SULPHATE.—Quotations for B.P. in minimum 1-ton lots vary between £18 and £21 per ton according to size of crystal and manufacturer. Exsiccated is £42 per ton. All ex works.

MAGNESIUM TRISILICATE.—In 28-lb. packages the prices (per lb.) are now as follows:—28-lb., 4s. 9½d.; 1-cwt., 3s. 10d.; 5-cwt., 3s. 7d.; 1-ton, 3s. 1d.

NIKETHAMIDE.—Price per kilo is 100s.

OXALIC ACID.—Manufacturers' rates for 1-ton lots are from £128 10s. per ton, delivered in free kegs.

PARAFFINS.—Prices to wholesale distributors are:—Liquid: HEAVY, B.P., £107 17s. 6d. per ton; LIGHT, B.P., £87 15s.; Technical White oils, £79 5s. for the LIGHT and £92 15s., for the MEDIUM. All in 40-50 gall. returnable loaned drums, delivered U.K. Soft: WHITE, medium consistency is now £110 15s. per ton. YELLOW, £88 10s., all B.P., in non-returnable drums delivered.

PHENOL.—Basic price for ice crystals in drums is 1s. 4½d. per lb. (under 1-ton lots, 1s. 7½d.). Detached crystals, 2d. per lb. above and LIQUID, B.P., 4d. per lb. below the foregoing prices.

PHENYTOIN SODIUM.—B.P. is 23s. per lb. in 1-cwt. lots or 25s. less than 56 lb.

PHOSPHORIC ACIDS.—B.P. (s.g. 1.750) is quoted at 1s. 4d. per lb. in 10-carboy lots. 1-2 carboys, 1s. 8d. per lb. B.P. 1914 is quoted from 1s. 2d. to 1s. 6d. per lb. HYDROPHOSPHORUS, B.P.C., in winchesters is from 7s. 5d. to 8s. 6d. per lb., as to quantity.

PILOCARPINE.—In 2-kilo lots prices are: HYDROCHLORIDE, 1,013s. per kilo; NITRATE, 825s.

QUINIDINE.—Prices are as follows:—

Home Trade	500 oz. or more	100-400 oz.
	per oz.	per oz.
QUINIDINE	s. d.	s. d.
ALKALOID	7 11½	8 1½
GLUCONATE	9 4½	9 6½
HYDROBROMIDE	6 7	6 9
HYDROCHLORIDE	6 9	6 11
SULPHATE	6 0	6 2
HYDROQUINIDINE	11 2	11 4
HYDROCHLORIDE	8 6½	8 8½
GLUCONATE	8 6½	8 8½

For export quinidine alkaloid ranges from £12 12s. 3d. to £12 17s. 4d. per kilo and sulphate from £9 10s. 5d. to £9 15s. 6d.

QUININE.—Makers' rates for 1,000-oz. lots are now:—SULPHATE, B.P.C., 1932, 1s. 10d. per oz. SULPHATE, B.P.C., 1953, 2s. 0½d.; BISULPHATE, 1s. 10d.; DI-HYDROCHLORIDE, 2s. 4½d.; HYDROCHLORIDE, 2s. 6½d.; ETHYL CARBONATE, 4s. 3d.

## Alcohol

BRITISH SPIRIT per proof gall.:—

*Ethyl Alcohol*: (95 per cent. Gay Lussac, 66 o.p.); where the number of proof gall. taken over any one year ended March 31 is 300,000 or over 4s. 0½d.; 200,000 and less than 300,000, 4s. 0½d.; 100,000 and less than 200,000, 4s. 1½d.; 50,000 and less than 100,000, 4s. 1½d.; 10,000 and less than 50,000, 4s. 2½d.; 2,500 and less than 10,000, 4s. 2½d. Prices are exclusive of duty and are for tank wagon lots. In 40-gall. drums there is a surcharge of 1d. per proof gall. The following grades are subject to a premium on the above prices as set out in the next paragraph:—

*Absolute Alcohol*, 95.5 per cent., 74.5 o.p., 3d. more per proof gall., the special high strength (99.9 per cent., 75.2 o.p.), 5d. more. *Doubly Rectified Alcohol* (S.V.R.) 95.8 per cent., 68 o.p., is 3d. more and *P.I. Rectified Alcohol*, 96.1 per cent., 68.5 o.p., 8d. more. *R.R. Absolute Alcohol* (re-rectified, 99.7 per cent., 75 o.p.), 14s. 10d. per bulk gall. net.

## Methylated Spirit

METHYLATORS' rates per bulk gall. in Great Britain are as follows:—

*Industrial Methylated spirit*: Strength 61 o.p., 500 gall. and over, 5s. 11d.; 100 gall. and under 500 gall., 6s. 2d.; 40 gall. and under 100 gall., 6s. 5d.; 10 gall. and under 40 gall., 6s. 10d.; 5 gall. and under 10 gall., 7s. 3d. Strength 64 o.p., 4d. per gall.; 66 o.p. (B.P.), 1d.; 68 o.p., 3½d. more than the above rates with 74 o.p. at 6s. 8½d., 6s. 11½d., 7s. 2½d., 7s. 7½d. and 8s. 0½d. per gall. for similar quantities. Tank wagon delivery is 1d. per gall. off list price—minimum, 500 gall. For industrial methylated spirit of standard toilet quality prices are from 7s. 2½d. (tank wagon) for 500 gall. to 8s. 8d. for 5-10 gall. (in drums) for 61 o.p.

*Pyridinised industrial methylated spirit*: Strength, 66 o.p., 500 gall. and over, tank wagon delivery, 6s. 2d.; 100 gall. and under 500 gall. (in drums), 6s. 6½d.; 40 gall. and under 100 gall., 6s. 9½d.; 10 gall. and under 40 gall., 7s. 2½d.; 5 gall. and under 10 gall., 7s. 7½d.

*Mineralised methylated spirit*: Strength 64 o.p. in one delivery, 100 gall. and under 500 gall., 6s. 6½d.; 40 gall. and under 100 gall., 6s. 9½d.; 10 gall. and under 40 gall., 7s. 2½d.; 5 gall. and under 10 gall., 7s. 7½d.

*Methylated resin finish* is 3d. per gall. over and *methylated shellac finish* is 1s. per gall. over the prices of pyridinised methylated spirit.

Terms:—Deliveries free and carriage paid on returned empties; net cash.

## Crude Drugs

ALOES. — Cape prime on the spot is 215s. per cwt. and for shipment, 192s. 6d. c.i.f. Curacao, 500s., spot.

BELLADONNA. — Herb is 8s. 3d. per lb. on the spot. Root is 1s. 6d. spot; shipment, 1s. 3d. c.i.f.

CAMPHOR.—B.P. POWDER is from 4s. 3d. per lb., duty paid. TABLETS,  $\frac{1}{4}$  oz., are 5s. 6d. in bond.

CAPSICUMS. — East African are from 140s. to 175s. per cwt. on the spot.

CASSIA LIGNEA.—Spot, whole 270s. and shipment, 255s. c.i.f.

CINNAMON.—Ceylon for shipment (c.i.f.) per lb.; OOOO, 6s. 7 $\frac{1}{2}$ d.; OOO, 6s. 5 $\frac{1}{2}$ d.; OO, 6s. 4d.; seconds, 4s. 9 $\frac{1}{2}$ d.; featherings, 2s. 1d.; quillings, 3s. 11d.; chips, 1s. 1d.

DIGITALIS LEAF.—Purpurea from 1s. 2 $\frac{1}{2}$ d. to 2s. 7d. per lb., c.i.f.

ELEMI.—Spot from 1s. 10 $\frac{1}{2}$ d. per lb.

ERGOT.—Portuguese is dearer at 7s. per lb., landed terms asked. Eastern European not offering.

FRANGULA.—Spot is 105s. per cwt.

GENTIAN. — Spot: French, 170s. per cwt.; Jugo-Slavian, 152s. 6d.

GINGER. — African, 120s. per cwt. spot and 112s. 6d. (new crop), c.i.f. Jamaican No. 3, spot, 260s. and shipment 237s. 6d., c.i.f. Cochin spot quoted 125s.; shipment 130s., c.i.f.

GUM ACACIA. — Kordofan cleaned sorts are 142s. 6d. per cwt. on the spot; April-May shipment, 133s., c.i.f.

HENNA.—Indian for shipment 72s. 6d., c.i.f.

HONEY. — Australian lightamber is 105s. to 110s. and medium amber 100s. to 105s. Argentine, 115s. to 120s.; Jamaican 120s. to 125s.; New Zealand clover, 170s., nominal; all per cwt. on the spot.

HYDRASTIS.—Spot 28s. per lb.

IPÉCACUANHA. — Shipment (c.i.f.) Matto Grosso, 51s. 6d. per lb.; Colombian, 53s. 6d.; Nicaraguan, 67s. 6d. Spot Matto Grosso, 54s.

KARAYA. — No. 1 gum on the spot is quoted at 260s. per cwt., No. 2 at 185s.

KOLA NUTS. — Jamaican spot market cleared, shipment, 7d. per lb., c.i.f. African 5d. to 5 $\frac{1}{2}$ d. spot and 4d., c.i.f.

KRAMERIA.—Root is quoted at 90s. per cwt.

LANOLIN. — ANHYDROUS, B.P., is from 170s. to 175s. per cwt. in 1-ton lots and HYDROUS, B.P., 150s., free drums, delivered.

LIQUORICE.—Natural root: Persian on the spot is 50s.; for shipment, 42s. 6d., c.i.f., per cwt. Block juice: Anatolian and Chinese, 190s. per cwt.; Italian stick from 310s. to 476s. per cwt. Spray dried extract, 3s. per lb.

LOBELIA HERB. — Spot offers of American can be 3s. 9d. per lb. and for shipment, 3s. 6d., c.i.f. Dutch 3s. 1d., c.i.f. for shipment; spot 3s. 5d.

MACE. — Whole pale blade 23s. 6d. per lb. on spot.

MENTHOL. — Chinese is nominally 60s. per lb. in bond; Brazilian, spot, 36s. 6d., in bond; April-May shipment, 36s. 3d., c.i.f.

MERCURY. — Price per flask (76-lb.) is £78 on the spot.

NUTMEGS. — West Indian 80's 17s. per lb., spot; sound unassorted, 12s. 6d.; defectives, 8s. 9d.

NUX VOMICA.—Scarce. Shipment, 65s. cwt., c.i.f.

ORANGE PEEL. — Scarce. Spot: Sweet ribbon, 2s. per lb.; bitter quarters: West Indian, 1s.; Spanish, 1s. 8d.

ORRIS ROOT. — Florentine is 335s. per cwt.

PAPAIN.—East African, 19s. per lb., c.i.f., for grade one, spot, 20s. Belgian Congo and Ceylon No. 1 white, 16s. 6d., c.i.f.

PEPPER. — White Sarawak spot, 3s. per lb., April shipment, 3s. c.i.f.; Black Sarawak, spot, 1s. 10 $\frac{1}{2}$ d., April shipment, 1s. 8 $\frac{1}{2}$ d., c.i.f. Black Malabar new-crop for April shipment, 215s., c.i.f., quoted, spot, 230s. nominal.

PEPPERMINT LEAVES.—Dutch, 2s. 2d. to 2s. 10d. per lb., c.i.f.

PIMENTO.—Spot value is 550s. to 560s. per cwt.

PODOPHYLLUM.—*Emodi*: 230s. per cwt., c.i.f., shipment. *Peltatum*, on the spot, 4s. 3d. per lb.; shipment, 450s. per cwt., c.i.f.

PYRETHRUM.—Extract, minimum 25 per cent. w/w pyrethrins, is 75s. per lb. for small lots.

QUASSIA.—Spot offers are 50s. per cwt., ex wharf.

QUILLAIA.—Spot offers of whole bark at 129s. per cwt.; cut, 160s. Whole for shipment, 95s., c.i.f.

RAUWOLFIA.—*Canescens*, 3s. 6d. per lb., c.i.f.; *Vomitoria*, 2s. 3d., c.i.f.; *Serpentina*, 6s., c.i.f. asked.

RHUBARB. — Chinese small rounds 6s. 4 $\frac{1}{2}$ d. to 6s. 9d. on the spot.

SAFFRON. — Spanish is quoted at 200s. per lb.

SARSAPARILLA.—Jamaican native red on the spot is 2s. 9d. per lb. Shipment, 2s. 4d., c.i.f.

SEEDS. — (Per cwt.) Anise, Spanish, 160s.; Turkish, 140s., both duty paid.

CARAWAY.—Dutch again easier with sellers at 112s. 6d., duty paid. CELERY.—Indian is quiet at 165s. on spot, and new-crop for shipment, 132s. 6d., c.i.f.

CORIANDER.—Moroccan unchanged on spot at 50s. duty paid; shipment (new-crop) 42s. 6d., c.i.f.

CUMIN.—Iranian is 255s., in bond.

DILL.—Indian on spot sold at 80s.; shipment advanced to 67s. 6d., c.i.f.

FENNEL.—Chinese, 140s., duty paid; Indian, 135s.

FENUGREEK.—Moroccan, spot, 43s., duty paid.

MUSTARD.—English, 120s. to 125s., quoted according to quality.

SENEGA.—Spot offered at 14s. 9d. per lb.; shipment nominal.

SENNA.—*Timmevelly* LEAVES, prime No. 1, 1s. 5d. per lb., f.a.q.; No. 3, 10d. PODS: Manufacturing (f.a.q.), 1s. 3 $\frac{1}{2}$ d. and hand-picked, 1s. 9d. to 2s. 2d. *Alexandria* pods: Manufacturing, offered from 1s. 6d. with hand-picked from 4s. to 6s. 6d.

SHELLAC.—F.O.T.N. 177s. 6d. per cwt., F.O. No. 1, 207s. 6d.; fine orange, 215s. to 267s. 6d.

SQUILL.—White is quoted at 85s. per cwt. on the spot.

STRAMONIUM.—Indian LEAVES 60s. per cwt., spot. Dutch 0.5 per cent. alkaloid, 94s. c.i.f.

STYRAX.—Spot, 27s. per lb.

TONQUIN BEANS.—Para on the spot are offered at 8s. 8d. per lb. Angostura, 11s.

TRAGACANTH.—No. 1 ribbon is £115 to £120 per cwt. No. 2, £105 to £110.

TURMERIC.—Madras finger is 85s. on the spot; new crop for April-May shipment, 75s., c.i.f.

VALERIAN ROOT.—Spot: Indian (with rootlets) is 130s. and Belgian, 175s. to 195s. per cwt. Dutch (max. 2 $\frac{1}{2}$  per cent. sand) for prompt shipment, 159s., c.i.f.

VANILLIN.—Rates (per lb.) are now:—5-cwt. lots, 25s. 3d.; 1 cwt., 25s. 6d.; 56-lb., 25s. 9d.; smaller quantities, 26s.

WAXES. — (Per cwt.) BEES'—Dar-es-Salaam, spot, 480s.; shipment, 465s., c.i.f. Abyssinian, spot 450s. in bond; shipment, 420s., c.i.f. Benguela spot, nominal; shipment, 450s., c.i.f.

CANDELILLA.—Spot 460s. CARNAUBA.—Fatty grey spot, 580s.; for shipment, 577s. 6d., c.i.f. Prime yellow, spot, 910s.; shipment, 885s., c.i.f.

## Essential and Expressed Oils

BAY.—West Indian is 12s. 6d. per lb. on the spot.

CADE.—Spanish is 3s. 6d. per lb. for drum lots.

CAJUPUT.—Spot supplies are from 11s. 6d. per lb.

CARAWAY.—Imported oil is 27s. 6d. per lb.

CARDAMOM. — Price per lb. is from 330s. for English-distilled and 267s. 6d. for imported.

CELERY SEED. — Oil is 65s. per lb. for bulk lots.

CHENOPODIUM.—Spot value is 38s. per lb. for original containers.

CLOVE.—Madagascar leaf spot and forward prices are nominal. Rectified 87-88 per cent., 9s. 6d. Distilled bud oil, English, B.P., 30s. to 31s.

CUMIN.—Imported oil is now about 90s. per lb.

FENNEL.—Spanish sweet on the spot is quoted at 9s. 6d. per lb.

GERANIUM.—Bourbon is 132s. 6d. per lb. on the spot and 130s. 6d., c.i.f. Algerian, 92s. 6d.

JUNIPER.—B.P.C. 1949 oil is from 12s. 6d. per lb. on the spot. English-distilled, 180s. JUNIPER WOOD, from 5s.

LEMON.—B.P. grades from 16s. to 26s. per lb. on the spot. Californian for shipment, 25s. to 28s. 6d., c.i.f. Terpeneless, 500s. per lb.

NUTMEG.—Imported B.P. oil is from 70s. to 92s. 6d. per lb. English-distilled, 95s. to 97s. 6d. as to quantity.

ORANGE.—Spot quotations of sweet oil include Floridan at 7s. 6d. per lb.; Californian, 10s.; West Indian, 8s.; West African, 14s.; Israeli, 12s. 6d. For prompt shipment. Californian cold-pressed U.S.P., 10s. 9d., c.i.f.; distilled, 5s., c.i.f. Terpeneless is 200s. per lb., spot.

PATCHOULI.—Penang is 26s., duty paid and 23s. c.i.f., per lb.

PEPPERMINT.—*Arvensis*: Chinese is 27s. per lb., spot nominal; shipment not offering. Brazilian sharply advanced to 10s. 6d. spot and c.i.f. Formosan, 16s. 6d., spot; March-April shipment, 16s. c.i.f. *Piperita*: Italian " Mitcham-type " from 42s. 6d. to 50s.; American, 27s. 6d. to 30s., as to origin.

PETITGRAIN.—Paraguay is offered at 18s. 6d. per lb., on the spot; shipment, 17s. 6d., c.i.f.

PIMENTO.—English-distilled berry is 167s. 6d. per lb.; imported, 77s. 6d. Rectified leaf, 27s. 6d. per lb. for small lots.

SAGE.—Spanish is 9s. per lb.; Dalmatian, 37s. 6d.

PEARMINT.—Offers of U.S.P. grade are from 37s. 6d. per lb., spot. Chinese, 28s., in bond.

VETIVERT.—Spot is currently at about 80s. per lb.

YLANG YLANG.—Spot is from 32s. 6d. to 46s. per lb. as to grade.

## UNITED STATES REPORT

NEW YORK, APRIL 7: Firm spots in the market included BORAX, BORIC ACID and crude GLYCERIN. SODIUM PEROXIDE moved up one cent to 21 $\frac{1}{2}$  cents a lb. Brazilian MENTHOL advanced 15 cents to \$5.15 a lb. due to higher replacement costs. PHENACETIN was advanced two cents to \$1.24 a lb. Higher per lb. among ESSENTIAL OILS were Algerian GERANIUM at \$19, up \$2; Bourbon GERANIUM at \$20, up 75 cents; Bourbon VETIVERT at \$13, up \$1 and CLOVE BUD at \$2.90, up 15 cents. SPEARMINT dropped 10 cents to \$6.25 a lb.

## TRADE MARKS

From the "Trade Marks Journal," March 25  
For emollient creams for the hands, being cosmetic preparations (3)  
ZALMA, 784,567, by Newton, Chambers & Co., Ltd., Thorncleif, nr. Sheffield.

For all goods (5)  
CALIGESIC, 760,703, CODELPRONE, 761,866, CREMO-DIMIDINE, 763,359, CHLOTRIDE, DARANIDE, 766,166-67, NECTAZETS, 768,883, HEPZIDE, 769,261, NECTAJADE, 773,219, MIOZETS, 775,814, STRATALETS, TROCOSONE, 775,816-17, MEPROLONE, 776,019, by Merck & Co., Inc., Rahway, New Jersey, U.S.A., WOFAPAS, 783,726, by Veb Farbenfabrik Wolfen, Wolfen, Bitterfeld, Germany, SCOLISSIN, 784,315, by Allen & Hanburys, Ltd., London, E.2.

For pharmaceutical and veterinary preparations, all containing sulphonamides (5)

SULFATHALIDINE, 761,185, by Merck & Co., Inc., Rahway, New Jersey, U.S.A., For pharmaceutical preparations of hormones (5)  
CODELSOL, 762,721, DECADRON, 777,861, by Merck & Co., Inc., Rahway, New Jersey, U.S.A.

For pharmaceutical preparations for use in the treatment of Parkinsonism and allied disorders of the nervous system (5)

COGENTIN, 765,318, by Merck & Co., Inc., Rahway, New Jersey, U.S.A.

For sulphaquinoxaline and preparations containing sulphaquinoxaline all for veterinary use (5)

SULFAFOX, 769,484, by Merck & Co., Inc., Rahway, New Jersey, U.S.A.

For disinfectants, antiseptics and deodorants (5)

AIRGUARD, B771,227, by Aspro-Nicholas, Ltd., Slough, Bucks.

For medicinal compounds and preparations, all containing amides (5)

STATAMID, 775,815, by Merck & Co., Inc., Rahway, New Jersey, U.S.A.

For pharmaceutical preparations (5)

AMBAROBINS, 777,934, by A. H. Robins Co., Ltd., London, E.C.3.

## COMING EVENTS

Items for inclusion under this heading should be sent in time to reach the Editor not later than first post on Wednesday of the week of insertion.

## Monday, April 13

EXETER BRANCH, PHARMACEUTICAL SOCIETY, Turk's Head hotel, High Street, at 7.30 p.m. Annual meeting.

PLYMOUTH BRANCH, PHARMACEUTICAL SOCIETY, Freedom Fields hospital, Greenbank, at 7.30 p.m. Annual meeting.

## Tuesday, April 14

PRESTON PHARMACISTS' ASSOCIATION, Country Club, Winkley Square, at 7.45 p.m. Annual meeting.

SOUTH-EAST METROPOLITAN BRANCH, PHARMACEUTICAL SOCIETY, New Cross inn, 323 New Cross Road, London, S.E.14, at 8 p.m. Dr. F. R. Waldron on "The Cult of the Serpent in the History of Man and Medicine."

SUNDERLAND BRANCH, PHARMACEUTICAL SOCIETY, Grand hotel, at 8 p.m. Annual meeting.

## Wednesday, April 15

BEDFORDSHIRE BRANCH, PHARMACEUTICAL SOCIETY, De Parys hotel, De Parys Avenue, Bedford, at 7.45 p.m. Annual meeting.

BRISTOL SCHOOL OF PHARMACY, College of Technology, Ashley Down, at 6 p.m. Prize distribution.

PHARMACEUTICAL SOCIETY, 17 Bloomsbury Square, London, W.C.1, at 7.30 p.m. Dr. J. B. Stenlake on "Progress in the Chemistry of Natural Products."

ROYAL SOCIETY OF ARTS, John Adam Street, Adelphi, London, W.C.2, at 2.30 p.m. Professor G. C. Varley (Oxford University) on "Biological Control of Agricultural Pests."

SOCIETY OF COSMETIC CHEMISTS OF GREAT BRITAIN, University College, Gower Street, London, W.C.1, British Congress of Cosmetic Science, Until April 17.

SOUTH LONDON AND SURREY PHARMACISTS' GOLFING SOCIETY, Langley Park Golf Club, Barn-

field Wood Road, Beckenham, at 1.30 p.m. Stableford competition.

## Thursday, April 16

BIRKENHEAD AND WIRRAL ASSOCIATION AND BRANCH, PHARMACEUTICAL SOCIETY, Hulme Hall, Dance.

EAST KENT BRANCH, PHARMACEUTICAL SOCIETY, Falstaff hotel, Canterbury, at 8 p.m. Members' night.

FINE CHEMICALS GROUP, SOCIETY OF CHEMICAL INDUSTRY, Royal Institution, 21 Albemarle Street, London, W.1, at 7 p.m. Professor A. Stoll on "Chemistry of the Glycosides of Digitalis."

ISLE OF WIGHT BRANCH, PHARMACEUTICAL SOCIETY, God's Providence house, Newport, at 7.30 p.m. Annual meeting. Mr. K. Holland on "The Pharmacist of Today and Tomorrow."

LIVERPOOL CHEMISTS' ASSOCIATION AND BRANCH, PHARMACEUTICAL SOCIETY, Adelphi hotel, at 8 p.m. Dr. T. L. Hobday (Liverpool Port senior medical officer) on "Experiences of a Port Medical Officer."

LONDON BRANCH, GUILDFORD PUBLIC PHARMACISTS, Wellcome building, 183 Euston Road, London, N.W.1, at 7 p.m. Annual meeting and Dr. G. H. C. Melcote on "The Anaemias."

NORTHERN SCOTTISH BRANCH, PHARMACEUTICAL SOCIETY, Royal hotel, Inverness, at 8 p.m. Mr. G. H. Hughes (vice-president of Society) on "Looking Ahead."

THAMES VALLEY PHARMACISTS' ASSOCIATION AND BRANCH, PHARMACEUTICAL SOCIETY, Kingston hotel, Kingston-upon-Thames, at 7.45 p.m. Annual meeting.

## Friday, April 17

HULL CHEMISTS' ASSOCIATION AND BRANCH, PHARMACEUTICAL SOCIETY, Imperial hotel, at 8 p.m. Annual meeting.

## C. &amp; D. WEEKLY LIST OF PRICES

A = Advanced; R = Reduced; I.R.P. = Inclusive Retail Price; \* = Tax 25 per cent.; £ = Tax 50 per cent.

## CORTICOSTEROIDS

BOOTS PURE DRUG CO., LTD. (from April 6)  
Each I.R.P.

Cortistab injection  
25 mgm, 10 mils 11 0 14 8 R  
tablets 5 mgm, 40 7 1/2 10 2 R  
100 18 7 24 9 R  
500 90 6 1/2 120 9 R  
25 mgm, 40 30 6 49 8 R  
100 74 0 98 8 R  
500 360 0 480 0 R

Deltastab tablets  
1 mgm, 30 4 7 6 1 R  
100 14 6 19 4 R  
500 62 6 83 4 R  
5 mgm, 30 16 0 21 4 R  
100 52 0 69 4 R  
500 236 0 314 8 R  
1,000 424 10 566 5 R

Deltastab B tablets  
5 mgm, 30 16 0 21 4 R  
100 52 0 69 4 R  
500 236 0 314 8 R

Hydrocortistab eye drops  
3 mils 3 6 4 8 R  
eye ointment 2.5 per cent.  
3 gms. 4 7 6 2 R  
injection 25 mgm. 5 mils 6 9 9 0 R  
lotion 0.25 per cent. 20 mils 3 6 4 8 R  
0.5 per cent. 20 mils 5 6 4 8 R  
1 per cent. 20 mils 7 9 9 R

Barquolin H.C. 10 gm. 4 0 R  
Delta-Genacort tablets  
1 mgm. 100 14 6 R  
500 62 6 R  
5 mgm. 20 10 8 R  
100 52 0 R  
500 236 0 R

Framycort lotion  
0.5 per cent. 20 mils 8 3 R  
(Claims for rebate on certified stocks held at the close of business on Saturday, April 4, should be addressed to the company. Claims should give details of item, strength, pack size and quantity and should be received at Loughborough by April 17.)

CIBA LABORATORIES, LTD.  
Vioform hydrocortisone  
cream and ointment  
5 gm. 4 10! R  
20 gm. 15 6 R

Ultracorten and Ultracorten H tablets	1 mgm. 25	6 6 R	100	52 0 R
	100	21 9 R	500	236 0 R
	500	93 9 R		
	5 gm. 25	20 0 R		
	100	78 0 R		
	500	354 0 R		
Delta-cortone tablets	1 mgm.	100	14 6 R	
		500	62 6 R	
	5 mgm.	30	16 0 R	
		100	52 6 R	
		500	236 0 R	
Hydrocortone eye drops, B.N.F.	1 per cent.	3 mils	3 6 R	
eye ointment	2.5 per cent.	3 gm.	4 8 R	
topical ointment	0.5 per cent.	5 gm.	2 0 R	
		15 gm.	4 9 R	
	1 per cent.	50 gm.	14 3 R	
		5 gm.	3 3 R	
		15 gm.	7 9 R	
		50 gm.	22 3 R	
2.5 per cent.	5 gm.	6 9 R		
		15 gm.	16 9 R	
		50 gm.	52 0 R	
lotion	0.5 per cent.	20 mils	5 6 R	
		120 mils	27 0 R	
	1 per cent.	20 mils	9 6 R	
		120 mils	49 0 R	
tablets	10 mgm. 25	11 0 R		
		100	41 0 R	
	20 mgm. 25	21 6 R		
		100	81 0 R	
sterile solution	20 mils	10 0 R		
injection saline suspension	1 mil. 6	9 3 R		
	5 mils	6 9 R		

ORGANON LABORATORIES, LTD. (from April 13)	Adreson tablets	5 mgm. 40	8 0 R
		100	19 0 R
		500	85 6 R
	25 mgm. 20	15 4 R	
	40	30 6 R	
	500	360 0 R	
suspension for intramuscular injection	25 mgm./c.c. 10 mils	11 0 R	

## Di-Adreson tablets

	Each	I.R.P.
1 mgm.	30	4 8 R
100	14 6 R	
500	62 6 R	
5 mgm.	30	16 0 R
100	52 0 R	
500	236 0 R	

## Di-Adreson-F tablets

	Each	I.R.P.
1 mgm.	30	4 8 R
100	14 6 R	
500	62 6 R	
5 mgm.	30	16 0 R
100	52 0 R	
500	236 0 R	

## Hydro-Adreson eye ointment

2.5 per cent.	3 gm.	4 8 R
skin lotion $\frac{1}{2}$ per cent.	3 gm.	4 8 R
in plastic bottles	20 mils	5 6 R
1 per cent.	20 ml's	9 6 R
skin ointment		
$\frac{1}{2}$ per cent.	5 gm.	2 0 R
	15 gm.	4 9 R
	50 gm.	13 9 R
1 per cent.	5 gm.	3 3 R
	15 gm.	7 9 R
	50 gm.	22 3 R
$\frac{1}{2}$ per cent.	5 gm.	6 9 R
	15 gm.	16 9 R
	50 gm.	52 0 R

## saline suspension for intra-articular injection

25 mgm./mil	5 mils	6 9 R
Hydro-Adrycin eye ointment	3 gm.	5 6 R

(Credit will be allowed on the difference in price on stocks held on the operative date.)

## PFIZER, LTD. (from April 6)

## Deltacortril A.F. tablets

100	52 0	78 0 R
Deltacortril I.M.	5 mils	27 0 40 6 R
Deltagycortril tablets	100	11 0 16 6 R
The following are further amendments to prices published April 4.		
Cortril ophthalmic ointment		
$\frac{1}{2}$ per cent.	3 gm.	4 8 7 0 R
tablets	10 mgm.	25 15 9 R
	25 mgm.	20 25 3 R

## ROUSSEL LABORATORIES, LTD. (from April 13)

## Asmaeort

20	6 0 R	
100	28 0 R	
Cortisyl injection		
25 mgm./mil	10 mils	11 0 R
tablets	5 mgm.	4 0 R
	500	90 0 R
25 mgm.	20	15 6 R
	40	30 6 R
	100	74 0 R
	500	360 0 R

## Decortisyl and Precortisyl tablets

1 mgm.	100	14 6 R
	500	62 6 R
5 mgm.	30	16 0 R
	100	52 0 R
	500	236 0 R

## Hydrocortisyl eye drops

1 per cent.	3 mils	3 6 R
eye ointment		
0.5 per cent.	3 gm.	2 0 R
2.5 per cent.	3 gm.	4 6 R
injection		
25 mgm./mil	1 mil	2 6 R
	5 mils	6 9 R

## intravenous

100 mgm.	20 mils	8 6 R
skin lotion		
0.5 per cent.	20 mils	5 6 R
1 per cent.	20 mils	9 6 R
skin ointment		
0.5 per cent.	5 gm.	2 0 R
	15 gm.	4 9 R
1 per cent.	5 gm.	3 3 R
	15 gm.	7 9 R
2.5 per cent.	5 gm.	6 9 R
	15 gm.	16 9 R
tablets	10 mgm.	25 10 6 R
	100	40 6 R
	20 mgm.	25 21 0 R
	100	81 0 R

## Precortisyl skin cream

0.25 per cent.	5 gm.	2 9 R
	15 gm.	6 9 R
0.5 per cent.	5 gm.	4 6 R
	15 gm.	11 9 R
skin lotion		
0.25 per cent.	20 mils	8 3 R
injection		
25 mgm./mil	1 mil	5 6 R
	5 mils	27 0 R

## intravenous

box of 2 ampoules	20 0 R
(Claims for rebate on forms sent out by the company should be returned by April 30. Retail	

pharmacists who have not received a claim form by April 11 should notify the company immediately.)

## UPJOHN OF ENGLAND, LTD. (from April 13)

Cortef acetate ointment	1 per cent.	5 gm.	3 3 R
		20 gm.	10 11 R
	2½ per cent.	5 gm.	22 3 R
		20 gm.	22 1 R
		50 gm.	52 0 R
Cortef ointment, B.N.F.	1 per cent.	5 gm.	3 3 R
		20 gm.	10 11 R
	2½ per cent.	5 gm.	22 3 R
		20 gm.	6 9 R
		50 gm.	52 0 R
Cortef suspension	5 mils	6 9 R	
	10 mils	11 0 R	

## Delta-Cortef tablets

5 mgm.	30	16 0 R
	100	100 0 R
	500	500 0 R
1 per cent.	30	16 0 R
	100	100 0 R
	500	500 0 R

## Solu-Cortef

100 mgm.	100 0 R
(Retailers' claims for credit on unopened packs held at the close of business on April 11 should be made on form which may be obtained from the company.)	

## OTHER PRICE CHANGES

## COW &amp; GATE, LTD. (from April 6)

## Cow &amp; Gate glucose

16 oz.	19 6	2 2 R
	Doz.	

## DISTILLERS COMPANY (BIOCHEMICALS), LTD. (from April 6)

Distivit B12 injection ampoules	250 microgram./mil	Each
	5	3 4
	1,000 microgram./mil	5
multidose containers	5	9 4
1,000 microgram./mil 5 mils	9 0	13 6 R

## veterinary packs

1,000 microgram./mil 10 mils	16 0	24 0 R
250 microgram./mil 30 mils	13 10	20 9 R
(Applications for credit on stocks held should be sent immediately to the company. Credit should not be claimed through wholesale chemists or any		

other distributor. Claims must specify strength and pack sizes, and batch reference numbers.)

## IMPERIAL CHEMICAL INDUSTRIES, LTD., PHARMACEUTICALS DIVISION (corrected note)

## Fulcin tablets

60 0	90 0	

## MAY &amp; BAKER, LTD. (trade from April 13, retail from May 11)

## Stemetil tablets

5 mgm.	25	5 0 R
	250	46 3 R
	50	25 0 R

## suppositories

5 mgm.	5	6 0 R
	25 mgm.	8 3 R

## ampoules

1 mil	10	8 3 R
	2 mils	13 9 R

## NEW PRODUCTS AND PACKS

## BRITISH SCHERING, LTD.

## Neutradonna powder

25 gm.	1	3	1 8

## CORTIFORTE LABORATORIES

## Cortabs tablets dispensing pack

500	15	0

## KLEINERT RUBBER CO.

## The Little Fisherman plastic bib

		3 11

## H. &amp; L. MARSHALL &amp; SONS, LTD.

## Shoe-eze

4 11		

## PETFOODS, LTD.

## Whiskas

1 0		

## RIKER LABORATORIES, LTD.

## Durophat capsules

7½ mgm.	30	6 6
dispensing pack	300	43 0
12½ mgm.	30	7 0
dispensing pack	300	46 6
20 mgm.	30	8 0
dispensing pack	300	52 0

## SMITH &amp; NEPHEW, LTD.

## Pasade sodium-PAS adhesive granules

500 gm.	37 0	55 6
	1,000 gm.	70 0 105 0

## PARKE, DAVIS &amp; CO., LTD.

## Euthymol tooth-paste

large	1	9	R
P.D. & Co, shaving cream	1	8	R
large	2	11	R



THE TREE OF LIFE, SYMBOL OF THE HIGHEST  
QUALITY IN FINE CHEMICALS TODAY.

# CARNEGIES of WELWYN

ESTABLISHED  
1911

MANUFACTURED AT OUR  
WELWYN GARDEN CITY FACTORY

## PIPERAZINE

B.P.C.

*The modern treatment for worm infestation  
in medical and veterinary practice.*

**Piperazine Adipate**

**Piperazine Citrate**

**Piperazine Diacetate**

**Piperazine Hydrochloride**

**Piperazine Dihydrochloride**

**Piperazine Phosphate**

**Piperazine Sulphate**

**Piperazine Tartrate**

*CAN ALSO BE SUPPLIED IN  
TABLET & ELIXIR FORM*

*Enquiries are invited for:*

ADRENALINE  
ADRENACHROME  
MONOSEMICARBAZONE  
AMINOPHYLLINE  
ATROPINE & SALTS  
BISMUTH SALTS  
BRUCINE & SALTS  
CAFFEINE & SALTS  
CHRYSAROBIN  
EPHEDRINE & SALTS  
HOMATROPINE & SALTS  
HYDANTOIN DERIVATIVES  
IODIDES  
ISONICOTINIC ACID  
HYDRAZIDE  
ISOPRENALEINE SALTS  
LITHIUM SALTS  
METHOIN  
NORADRENALINE & SALTS  
P.A.S.  
PIPERAZINE & SALTS  
RESERPINE  
SANTONIN  
STRYCHNINE & SALTS  
THEOBROMINE & SALTS  
THIOMERSALATE  
QUININE & SALTS  
CINCHONA FEBRIFUGE  
TOTAQUINA

**C A R N E G I E S   O F   W E L W Y N   L I M I T E D**

*Manufacturers of Fine Chemicals* WELWYN GARDEN CITY · ENGLAND  
Telephone: WELWYN GARDEN CITY 5001 (10 lines) Cables: CARNEGIES, WELWYNGARDENCITY Telex: LONDON 28676

# The Better Proposition

FOR | \* YOU  
\* YOUR  
CUSTOMER

## Hair Magic "BROWNS"

Hair Magic semi-permanent Browns cover up to 50% of greying hair in one simple operation, with flattering Brown, Ashen Brown and Chestnut Brown

*Hair Magic is best for you too, bringing in 80% profit on every bottle you sell.*

*and here's how*

**CHEMIST'S PRICE 1/8 PER BOTTLE PLUS 60% P.T.**

**RETAIL PRICE INC. P.T. 4/- PER BOTTLE**

**\* CHEMIST'S PROFIT 1/4 PER BOTTLE ... OR 80% PROFIT**

*and remember*

*all the other Hair Magic shades give you the same profit.*

From Dr. J. BROWN  
12 NORTH ROAD  
HATBURY  
TELEPHONE 402

Elastic Yarn Stockings  
2-way stretch

In a case like  
this.... dispense  
**BURSON**

Burson Stockings, made exclusively on special knitting looms, are the product of many years' intensive research into the making of surgical stockings.

Always dispense and recommend Burson 2-Way Stretch Hosiery and ensure your customers' complete satisfaction. The quality—finish—colour and durability of Burson Hose make them the first choice of those who appreciate the best. Burson Stockings are fully fashioned and virtually indiscernible in use.

Burson Stockings are advertised in the Medical Journals and in a strong list of National Weekly Newspapers and Women's Magazines.

**DISPENSE BURSON whenever  
2-way stretch elastic or  
Lastex hosiery is prescribed**

— \* —

**AVAILABLE FREE ON REQUEST WITH BURSON STOCKINGS:—**

- Instruction Chart with details for measuring, fitting and exact adjustment to fit and tension.
- Individual Measurement and Order Forms.
- Instructions for mending and washing.
- Illustrated leaflets for your customers.

# BURSON

TWO-WAY STRETCH HOSIERY  
IS MADE FROM LASTEX YARN

**Sole Distributors:—FASSETT & JOHNSON LTD.,  
86, CLERKENWELL ROAD, LONDON, E.C.I**  
*Also at 6 CROW STREET, DUBLIN*



Reap the value of the advertising and send up your sales with good displays of **MAINLY FOR MEN**



**order now—**

Display cards and Counter leaflets are now available.

AGENCY ENQUIRIES TO:—

Cyclax Ltd., Mens Division, 65 South Molton Street, London, W.1. 'Phone: MAYfair 4341

*Cyclax*  
OF LONDON

promotes

# MAINLY FOR MEN

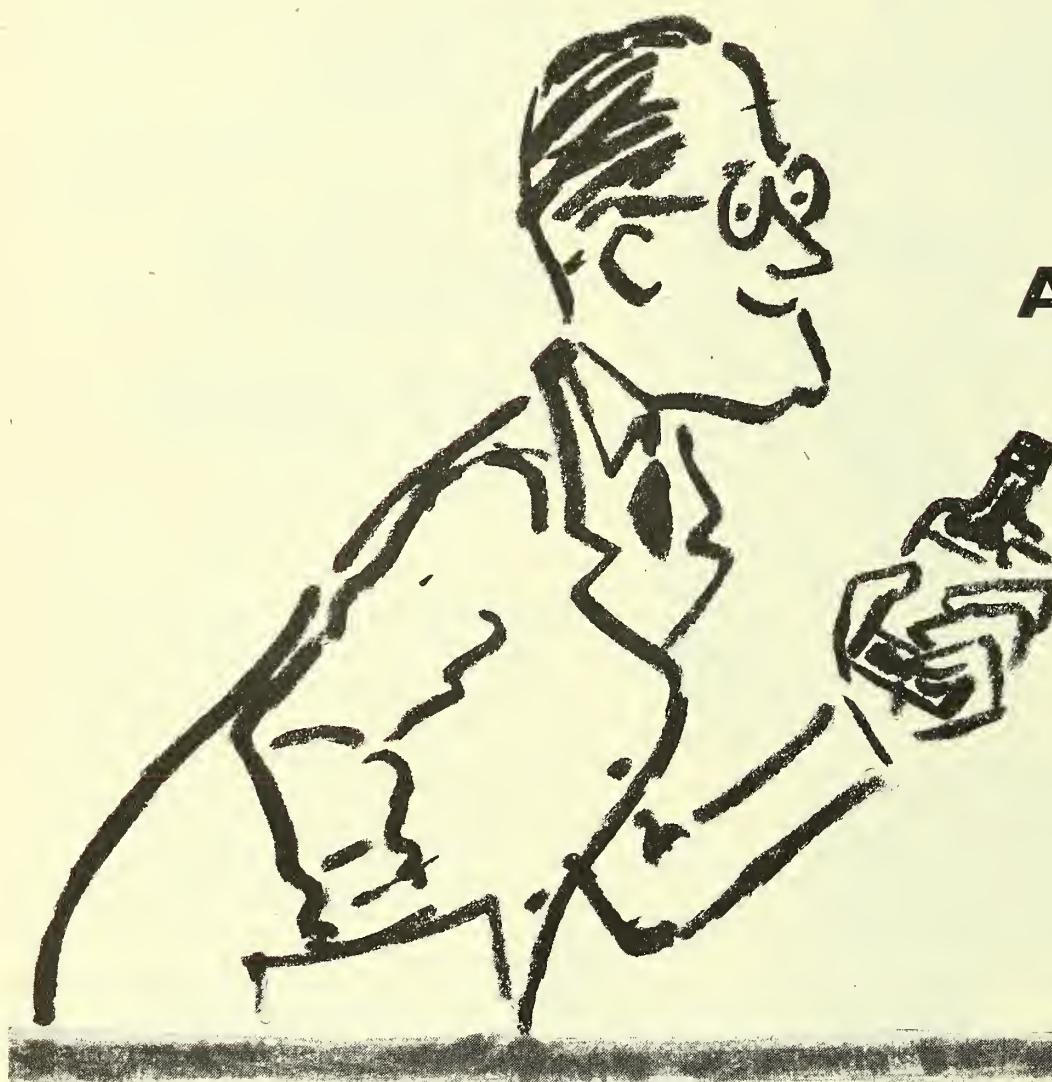
in men's magazines

Cyclax will put a special summer advertising drive behind their range of preparations, **MAINLY FOR MEN**. Advertisements concentrating on the new After-Shave Stick, and mentioning all products including the new Deodorant Stick, will appear in magazines. This is your opportunity to increase the demand in your shop for the profitable **MAINLY FOR MEN** and other Cyclax preparations.

The **MAINLY FOR MEN** Range includes:-

Lather Shave  
Brushless-Shave  
Soap  
After-Shave Stick  
After-Shave Lotion  
Pre-Electric Shave  
Invisible Talc  
Bath Talc  
Tonic Hair Lotion  
Cologne  
Spray Deodorant  
Deodorant Stick  
Shampoo





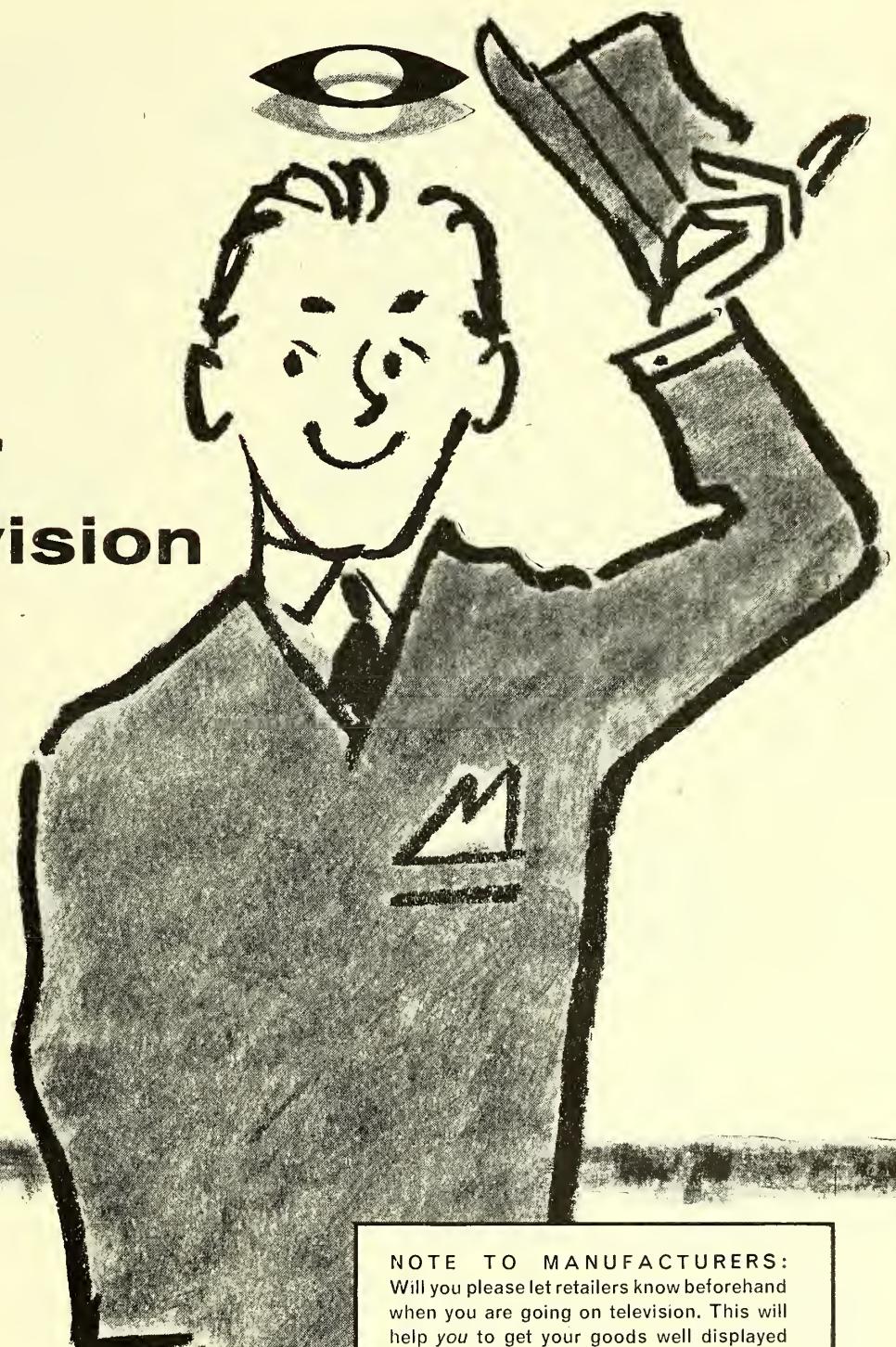
**Ask the  
if it's**

You know—we know—that the most successful products are advertised on TV. That TV is the most successful advertising medium. The *impact* medium that stimulates the greatest demand and *gets stocks moving fast*.



*At home to 10 million viewers in London and the Midlands*

# traveller on television



#### NOTE TO MANUFACTURERS:

Will you please let retailers know beforehand when you are going on television. This will help *you* to get your goods well displayed and will warn the *retailer* to be stocked and ready for a sudden big demand. Remember, too, that ATV's Merchandising Service is always at your disposal.

ASSOCIATED TELEVISION LIMITED  
Television House, Kingsway,  
London, W.C.2.  
Tel: CHAncery 4488

# BROOK PARKER E CO. LTD.

ASHFIELD  
BRADFORD 7

Specialists in GALENICALS, PHARMACEUTICAL CHEMICALS, ETHICALS, PACKED MEDICINAL SPECIALITIES, TABLETS, PILLS, CAPSULES, N.H. SUNDRIES, VETERINARY PREPARATIONS, INSECTICIDES, and DETERGENTS.

Direct importers of all VEGETABLE DRUGS.  
Factors of PHOTOGRAPHIC & ELECTRICAL GOODS.

for  
Home  
and  
Export  
Markets

also at  
314 DUKE STREET  
(Mr. Duncan McKeith)  
GLASGOW, E.I.  
TELEPHONE: BRIDGETON 0127

TELEPHONE  
**BRADFORD**  
32281-2-3-4-5  
(5 LINES)  
TELEGRAMS  
**BROPARCO**  
**BRADFORD**

## ST. JAMES' BALM

*The ONE Ointment  
for the  
MANY Skin Troubles*



ST. JAMES' BALM is the proven remedy for common skin troubles—and for some quite uncommon ones too! Because it contains the broth filtrates of the microbes causing most skin infections, treatment is successful in an exceptional number of cases. ST. JAMES' BALM is therefore the ideal general-purpose ointment for family use. On merit alone, ST. JAMES' BALM is in steadily increasing demand. You may stock and recommend it with absolute confidence.

MBL

MEDICO-BIOLOGICAL LABORATORIES LTD.

CARGREEN ROAD, SOUTH NORWOOD, LONDON, S.E.25

# CORVETTE GIRLS FOR DAILY MIRROR

Big space  
Advertisements  
for Corvette  
Brushless  
and Corvette  
After-Shave



Since the Corvette Girls took over our advertising, Corvette sales have risen faster than ever. Now the successful Reader's Digest campaign is being extended to the Daily Mirror. Large-space advertisements for both Corvette Brushless and Corvette

After-Shave are appearing throughout the Spring and Summer in Britain's largest circulation daily. The Mirror and Reader's Digest have a combined readership of 21 million. That's 21 million good reasons for stocking up with Corvette now.



# ILODERM

*a unique self-sterile Ointment that compares with no other in the treatment of:—*

**BURNS**

**BEDSORES**

**IMPETIGO**

**NAPKIN RASH**

**DERMATITIS**

**CRACKED NIPPLES**

*ask your usual wholesale House for supplies*

**ILON LABORATORIES**

LORNE STREET • HAMILTON • LANARKSHIRE

• RECOMMEND THE **BELLAPURIN**  
**RECTAL THERAPY**



FOR RAPID RELIEF  
OF  
**ABDOMINAL PAINS**  
**UTERINE INERTIA**  
**HÆMORRHOIDS**

Supplied in boxes of 12 and 50 Suppositories.

**P.A.T.A.**

TECHNICAL LITERATURE AND  
SAMPLES FREE ON REQUEST

**RIDDELL PRODUCTS LIMITED**

**RIDDELL HOUSE, DUNBRIDGE STREET, LONDON, E.2**

Telephone : SHOreditch 7254/6

Telegrams : PNEUMOSTAT, BETH, LONDON

and at 11 MANSFIELD CHAMBERS, ST. ANN'S SQUARE, MANCHESTER, 2

\* *Agfacolor*

# ENPRINTS

These are actual sizes:

**3½" x 3½"**

from square negatives

**2'9** EACH

A COMPREHENSIVE RANGE OF SUPER SPECIAL  
Agfacolor enlargements  
and contact prints also available.

**3½" x 5"**

from 35mm and  
oblong negatives

**2'9** EACH

\* Registered Trade Mark of the  
Manufacturers, Agfa A.G.,  
Leverkusen/Western Germany

**STOCK UP NOW WITH** *Agfacolor* **CN 17**

**High Speed Negative films.**  
Universal for daylight,  
flash and artificial light.

Sizes: 127, 120 and 620. 35mm standard cassette  
20-exposure, Karat 12 exposure 35mm cassette.

**DON'T FORGET**

*Agfacolor* **CT 18**

**Reversal film for sparkling  
colour-true transparencies.**

127, 120, 620, 35mm 20-exposure or 36-exposure  
cassette, Karat 12-exposure 35mm cassette.  
Supplies available now.

... a new and  
acceptable  
contraceptive



THE BRITISH DRUG HOUSES LTD. LONDON N.1

**'VOLPAR'**  
TRADE MARK

FOAMING TABLETS

Developed as the result of investigations in the B.D.H. Laboratories and issued after extensive clinical trials had confirmed their acceptability.

Included in the list of contraceptives approved by the Family Planning Association.

**PRICE**

Cartons of twelve tablets (each tablet individually sealed in metallic foil)—trade 1/10d., retail 2/9d.

DUNCAN PRODUCTS

made by pharmacists for pharmacists, include

# haemamol

an antiseptic, emollient and analgesic cream, combining the astringent and soothing properties of hamamelis and zinc oxide and the analgesic effect of chlorbutol. 'Haemamol' gives quick relief in haemorrhoids, abrasions and skin irritations.

Sells at 2s. 6½d. per tube inc. PT.

In display outers of 1 dozen, from your usual wholesaler.



DUNCAN FLOCKHART OF EDINBURGH

# DDD

## CLEARSKIN TROUBLES

# FAST

because the five powerful antiseptics in DDD penetrate and destroy skin impurities at source.

## CLEARSKIN SHELVES

# FASTER

because of consistently big advertising support. Look in these papers: Daily Mirror, Daily Express, News of the World, People, Empire News and Sunday Chronicle.

And these top periodicals: Woman, Woman's Own, Woman's Weekly. With a combined circulation of over 30 million.

## CLEARSKIN PROFIT

# FASTEST

because quick turnover is made *more* attractive by generous terms. Terms which will encourage you to stock up against a demand you *know* is there.

DDD Balm, Prescription and soap are available through your normal wholesaler or direct from

**D.D.D. Co. Ltd., 94 RICKMANSWORTH ROAD, WATFORD, HERTS.**

**DELFEN\* Vaginal Cream**

The most spermicidal contraceptive from modern research, for use without a diaphragm.  
Package A: 70 gm. tube, with ORTHO Applicator  
Package B: 70 gm. tube

**PRECEPTIN\* Vaginal Gel**

Contraceptive gel for use without a diaphragm.  
Package A: 82 gm. tube, with ORTHO Applicator  
Package B: 82 gm. tube

**ORTHO-GYNOL\* Vaginal Jelly**

Package A: 81 gm. tube, with ORTHO Applicator  
Package B: 81 gm. tube

**ORTHO-CREME\* Vaginal Cream**

Package A: 70 gm. tube, with ORTHO Applicator  
Package B: 70 gm. tube

**ORTHO-GYNOL\* Set**

Containing: 81 gm. tube of ORTHO-GYNOL  
ORTHO Diaphragm. In sizes 55 to 95  
(in 5mm. gradations)  
ORTHO Diaphragm Introducer

**ORTHO-CREME\* Set**

As ORTHO-GYNOL Set with tube of  
ORTHO-CREME instead of ORTHO-GYNOL  
Sizes 55 to 95 (in 5mm. gradations)

**ORTHO KIT\***

Containing: Full size ORTHO-GYNOL,  
trial size ORTHO-CREME,  
ORTHO Diaphragm and Diaphragm Introducer  
in woven plastic zipper bag.  
Sizes 55 to 95 (in 5mm. gradations)

**ORTHO\* Duo-Pack**

Containing: ORTHO Diaphragm  
in sizes 55 to 95 (in 5mm. gradations)  
Trial size ORTHO-GYNOL  
Trial size ORTHO-CREME

**ORTHO\* Applicator**

For vaginal application of measured dose  
(5 cc.) ORTHO-GYNOL, ORTHO-CREME,  
DELFEN Vaginal Cream or  
PRECEPTIN Vaginal Gel

**ORTHO\* Vaginal Diaphragm**

Coil spring, sizes 55 to 95 (in 5mm. gradations)

**ORTHO\* Diaphragm Introducer**

Individual introducers to accommodate  
diaphragms sizes 55 to 95  
(in 5mm. gradations)

# confidence...

The universal confidence in ORTHO contraceptive products reflects the standing and resources of the Ortho Research

Foundation—pre-eminent in research investigation, design and development of gynaecological pharmaceuticals.

This confidence in their uniform quality and contraceptive reliability is shared by physicians and patients alike.

It provides the security by which pharmacists everywhere may confidently stock, display and distribute  
ORTHO products for conception control.

Ortho Pharmaceutical Limited



High Wycombe · England

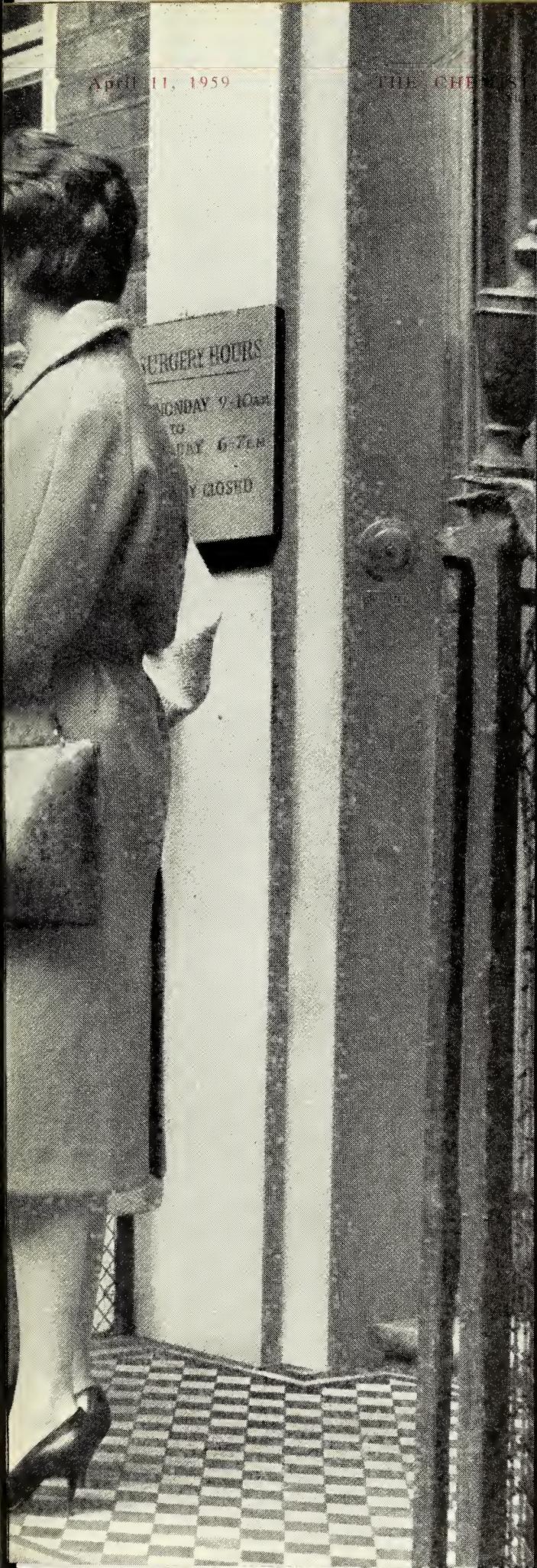
RIKER

*There is no  
condition  
in which  
any degree  
of obesity  
is advisable*



*... 25% of women  
attending their  
doctor are obese.  
These patients  
should be  
encouraged  
to reduce...\**





**now**

**dependable**

***weight loss with***

# **Durophet\***

*active appetite control without overstimulation*

*really long action: 12-14 hours from a single capsule*

*new formulation—balanced amounts of dextro and laevo amphetamine give more potent slimming action by increased appetite-suppressing effect, decreased stimulant effect*

*THREE strengths (20mg.; 12½mg.; 7½mg.) so that each therapeutic need can be met by a single capsule once a day.*

**PACKS AND PRICES:** all 3 strengths in containers of 30 capsules (Retail prices 6/6, 7/- and 8/-). Dispensing Packs of 300 capsules (Retail prices 43/-, 46/6 and 52/-). Exempt Purchase Tax

**Riker Laboratories Ltd**

*Loughborough, Leicestershire*



*Two outstanding* **SKF** *skin preparations*  
*showing a big margin of profit*

**PRAGMATAR**  
*for dandruff*

‘Pragmatar’ is highly effective in the treatment of dandruff. Fresh, pleasant-smelling, ‘Pragmatar’ has these advantages:

- Oil-in-water base, free from grease or wax.
- Cetyl-alcohol coal-tar distillate: all the advantages of crude coal-tar but does not irritate.
- Safe for children.

**PRAGMATAR for dandruff**

**safe • effective**

in 1 oz. tubes at a retail price of 4/4½d.

**ESKAMEL**  
*for acne*

Acne sufferers like using ‘Eskamel’. Here are three reasons why:

- ‘Eskamel’ often brings improvement not in weeks or months—but in days.
- The flesh-tinted base conceals the lesions while the active ingredients are at work.
- ‘Eskamel’ is pleasant to use: virtually invisible when applied, easy to put on, easy to remove.

**ESKAMEL for acne**  
**immediate concealment • rapid control**

in 1 oz. tubes at a retail price of 5/1d.

Smith Kline & French Laboratories Ltd, Coldharbour Lane, London SE5 Telephone: BRIxton 7722

# NUMBERED

among the finest  
pharmaceuticals  
produced & prescribed  
in Britain today

**SEDUMAX** An innocuous sedative and analgesic combination, indicated for the relief of insomnia due to neuralgic pain, pre-menstrual tension and other symptoms of psychosomatic disturbances. Vitamin B1 has been included in the formula for its beneficial effect in cases of nervous exhaustion and mental depression. Packs: 50 and 300 tablets.

**DRAPOLENE** For the speedy, soothing relief of napkin rash. This gentle cream was evolved specifically for the treatment and prevention of urinary dermatitis in infants and incontinent patients. 2-oz. tubes and 1-lb dispensing jars.

**FERROMYN** For the treatment of iron deficiency anaemias, particularly during pregnancy. Ferromyn contains ferrous succinate, an organic iron salt which can be absorbed into the system with minimal toxic effects. Dosage: 1 teaspoonful/tablet t.d.s. or as prescribed. Packs: 4-oz., 20-oz., 40-oz., 80-oz. Bottles: 100 tablets, 1,000 tablets.

**CICATRIN** An amino acid antibiotic cream or powder with the dual effect of controlling local infection and stimulating the growth of new tissue. Indicated for the treatment of superficial wounds, burns, varicose ulcers, rectal surgery and pyogenic skin conditions. Packs: 15 grammes collapsible tube, 15 grammes sprinkler.

**HYPON** Ideally balanced analgesic tablets which contain Codeine, phenacetin and acetylsalicylic acid plus caffeine and phenolphthalein to offset the side effects of depression and constipation. Packs: 10, 50, 125. Tax-free dispensing packs 300, 600 tablets.

**POLYBACTRIN** The first-ever antibiotic powder spray. A combination of antibiotics which do not induce resistant strains are dispersed in ultra-fine powder form to secure bacterial inhibition over a wide area and ensure immediate contact with any wound pathogens. Indicated in all branches of surgery and for use on any broken tissue surface as a prophylactic or treatment.

**VASCUTONEX** Efficacious in the treatment of muscular rheumatism and all soft tissue pains. Containing diethylamine salicylate and glycol salicylate, which ensure effective skin penetration and absorption into lipid tissue so that effective salicylate levels are obtained locally to the affected area. The cream is non-staining, odourless, and contains no counter-irritants. Pack: 30 grammes tube.

## SEDUMAX

mild sedative  
and analgesic

## DRAPOLENE

cream specific  
for Napkin Rash

## FERROMYN

high-tolerance  
oral iron

## CICATRIN

topical amino acid  
antibiotic

## HYPON

balanced analgesic  
and antipyretic

## POLYBACTRIN

unique antibiotic  
powder spray

## VASCUTONEX

topical salicylate  
cream therapy

# CALMIC

PURELY BRITISH PHARMACEUTICALS

**CALMIC LIMITED**, Crewe, Cheshire. Crewe 3251/7  
Australia: 458/468 Wattle Street, Ultimo, Sydney, N.S.W.

London: 2 Mansfield Street, W.1. LANGham 8038/9  
Canada: 220 Bay Street, Toronto.

*New and nationally advertised!*

**SANITARY PROTECTION IN LUXURY NYLON LINGERIE**

Women are quick to appreciate the many advantages of Cosette No-Belt Sanitary Protection. These dainty white nylon briefs with waterproof gusset and pockets for the towel are more hygienic, convenient and safe—a profitable line for you too!

No belts, hooks or pins

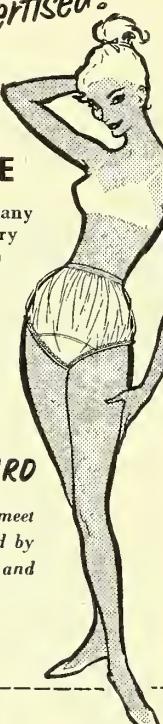
RETAIL 12/3 a pair. 3 sizes.  
Also in Rayon 9/11 a pair. 3 sizes.

**FREE DISPLAY OUTER & SHOWCARD**

*Be sure you can meet the immediate demand by sending for details and trade prices to:—*

**No Belt**

COSETTE LTD., 45 BEAUCHAMP PLACE, LONDON, S.W.3



*slim*  
the  
Granose way

Granose Rolls are light, crisp and crunchy and being low in starch, yet high in protein, make slimming a pleasure. They are nourishing, appetizing and will appeal to all the family.

MAKE SURE YOUR STOCKS ARE ADEQUATE!

**GRANOSE ROLLS**  
HIGH IN PROTEIN LOW IN STARCH  
Ideal for SLIMMING  
GRANOSE FOODS LTD WATFORD - HERTS



# PRIDE 7<sup>D</sup>

## NEW DOUBLE SHAMPOO SACHETS



### BEER SHAMPOO

a special Blend for BRUNETTES which helps to attain that much sought after high gloss so necessary with either natural or tinted BLACK hairs

### CHAMPAGNE SHAMPOO

is specially packed for those who desire the invigorating effect of wine and spirit with a lovely FRENCH PERFUME.

### MEDICATED SHAMPOO

a hair health shampoo free of all harsh antiseptics Based entirely on the Pure Natural Oils of the Pine and Ti-Trees is delightful to use and assures a clean healthy scalp.

These three shampoos are in double sachets giving sufficient for 2 complete shampoos. Smart and colourful pack.

Price 3/9 doz. plus 1/2 P.T.

From May, Roberts, Sangers or your usual wholesaler or direct

**B. N. FURMAN (Productions) LTD.,**  
133 Fonthill Road, N.4

## MODERN EQUIPMENT



**"WEBSTER'S"**  
STAINLESS STEELWARE

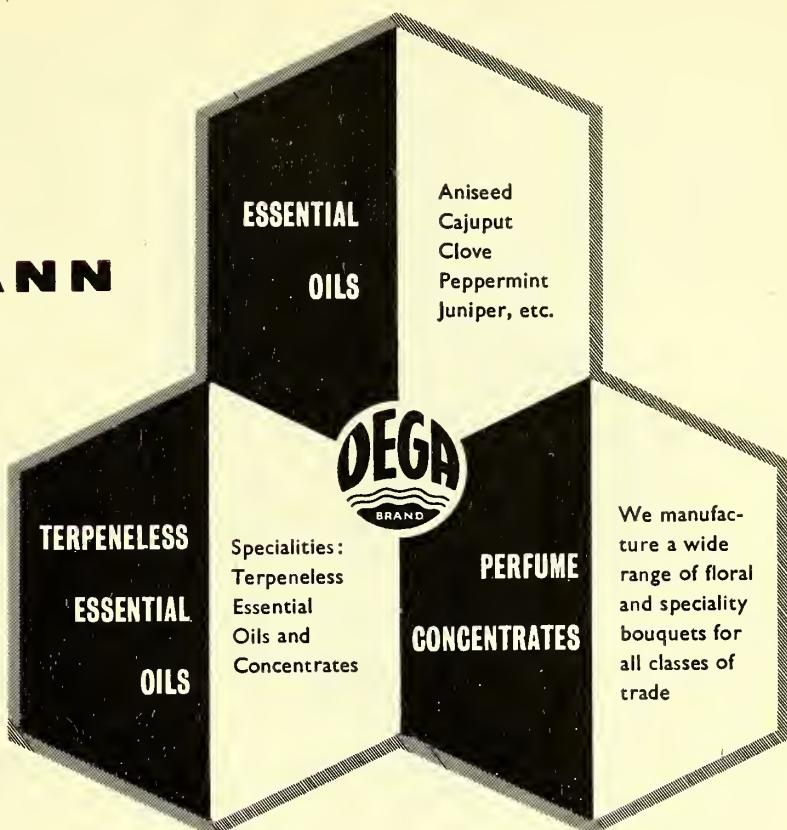
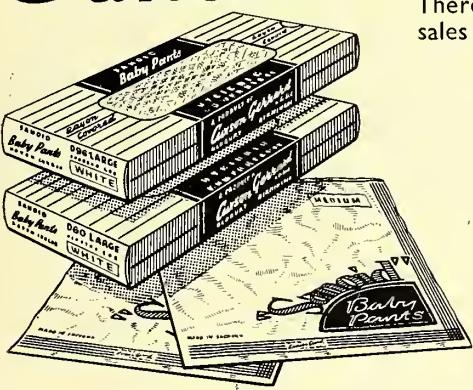
**ISAAC WEBSTER & SONS LTD.**  
ABBEY WORKS  
KIRKSTALL  
LEEDS. 5.

TELEPHONE S1580 LEEDS

TELEGRAMS, ISAAC WEBSTER, KIRKSTALL

**ZIMMERMANN**

Chas. Zimmerman & Co. Ltd.  
Dega Works, Walmgate Rd., Perivale, Middx.  
phone: Perivale 9121  
Glasgow Office: 75 Armadale St., Glasgow E.I.  
phone: Bridgetown 0325

*Sanoid*

# BABY PANTS

There are good reasons why many Chemists are enjoying profitable sales of this product.

1. Made from hard-wearing plastic.
2. Generous in size, comfortable in use.
3. Well presented at attractive retail prices.
4. Choice of three qualities.
5. Readily sold all the year round.
6. The quality ensures repeat business.

Why not place a trial order? You can't go wrong.

### PLASTIC BABY PANTS

in Cellophane Bags.

Medium or large size.	Retail pair	Trade Dozen
D.56 Elastic Legs	2/-	16/-
D.57 Non-elastic legs	2/-	16/-

### NEW PLASTIC BABY PANTS

In self-colour or pink.

Each in attractive carton.

Medium and large	Retail Pair	Trade Dozen
D.60 Elastic legs	2/6	20/-

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(Rayon covered)

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in Peach or White

Medium and large	Retail Pair	Trade Dozen
D.96 Elastic legs	3/9	30/-

Also "SANIBRIEFS" and "SANIPANTS" for ladies

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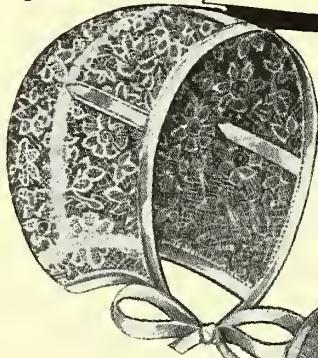
## Slumber Helmets



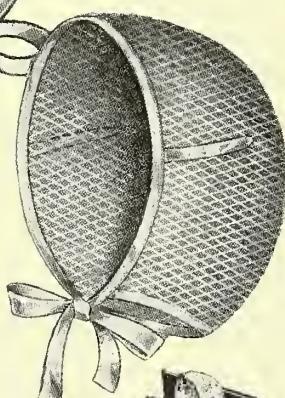
0562  
Perm Protector in Flame-proof Nylon Net. Elasticated to fit any size head: with Satin

Ribbon Ties so that Protector may be placed over "set" without disarranging hair! Available Pink, Blue and Black. 39/- per dozen. Also available with Button Fastening.

wake up  
Sales!



LJ.167  
Slumber Helmet in assorted Laces, Rayon Ribbons. Pink, Blue, Green and Rosewood. 35/6 per dozen.



LJ.560  
Slumber Helmet in Nylon Tricot. Rayon Ribbons. Pink and Blue. 32/- per dozen.

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request

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- ★ Prompt Personal Service always at your disposal

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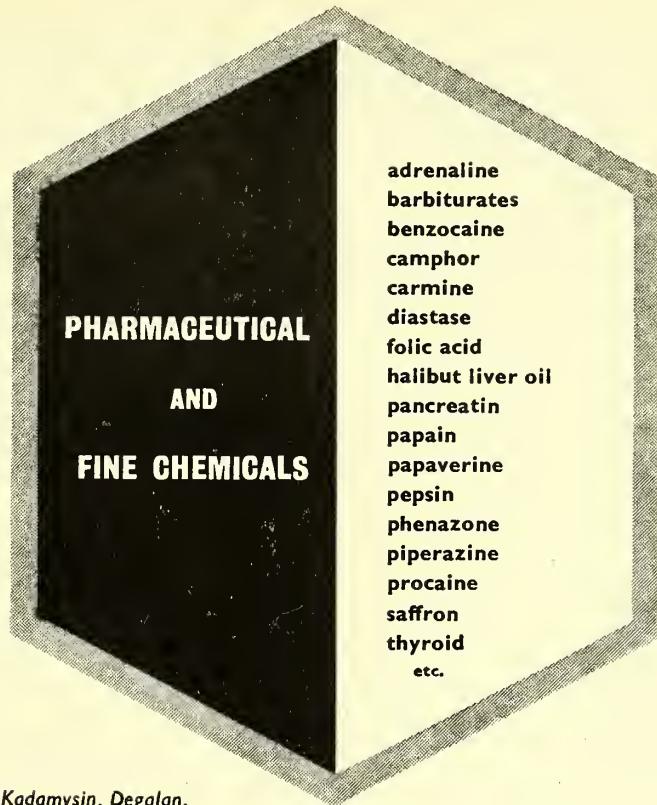
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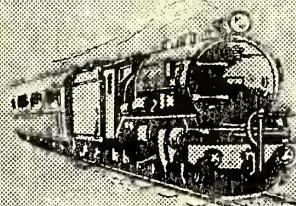
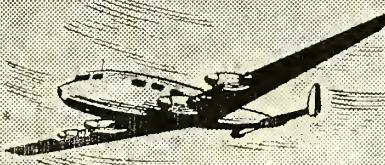
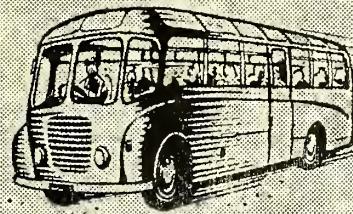
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## Dramamine

**For Adults and Children**

**Packs and Prices (Exempt from P.T.)**

*Tablets of 50 m.g. Trade Price Retail Price*

Bottle of 36	10/-	15/-
" 100	25/6	38/3
" 500	123/-	184/6
" 1,000	240/-	360/-
Box of 100 (strip pack- ing as illustrated)	25/6	38/3
<i>Injections—5 c.c. vials containing 250 mg.</i>		
Box of 6	32/6	48/6

*Dramamine is scheduled P.I. S.I.S.4.*



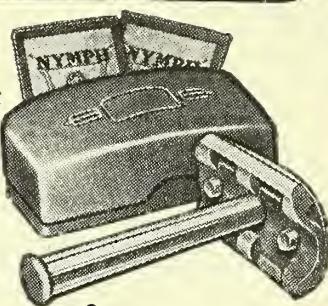
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G. D. SEARLE & CO. LTD., HIGH WYCOMBE, BUCKS.

April 11, 1959

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*Counter display ensures quick sales*



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Every woman is a possible buyer of this dainty toilet accessory. Reasonably priced at 3/7½ to ensure spontaneous purchase!

Complete in moulded case with 2 blades, in PINK, BLUE, GREEN. "Nymph" Blades in cartons of 6 blades, 1/6.

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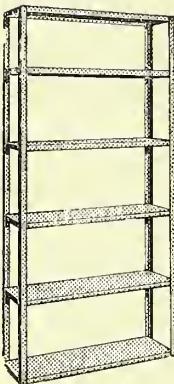
**SOUPLEX LTD., MORECAMBE, LANCS.**

*ladies' safety razor*

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**72" 34" 12"**

**HIGH WIDE DEEP**



DELIVERED FREE TO  
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**£3.15**

Also available in  
White at £5 per bay

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**HERE'S the STING**

Why is Calsol Milk a best seller? because it doesn't solidify, doesn't separate—keeps its satin-smooth creaminess on the beach, in the home—and on your shelves!

**HERE'S the THING**



**CALSOL MILK** made by **JEFFREYS MILLER & COMPANY LIMITED.**  
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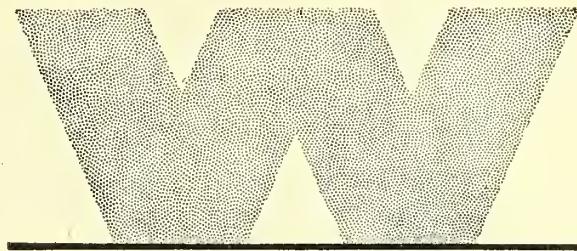
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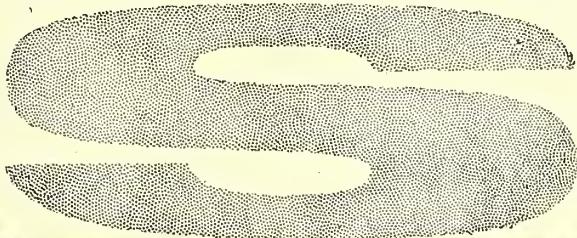
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will call on request to place before you fully illustrated details and comprehensive price list of our large and attractive range of Packed Pharmaceutical products. You may decide to display this range on our attractive terms.

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£15—'Sanatogen'  
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£10—'Sanatogen'  
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Shampoo  
Window Display

3 Balf Bros.,  
191 Victoria Avenue,  
Hr. Blackley,  
Manchester

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£5—'Sanatogen'  
Window Display  
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chance to win! Enter now!

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"LUTON" STRAW HAT DYES and  
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Attractive Pattern Cards and Showcards supplied.

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HONEYCOMB ALL-PURPOSE  
**SPONGE** FULLY  
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"The Art of Dispensing" is the most economical, complete and up-to-date manual dealing with the pharmacist's work at the dispensing counter. Explained in simple yet concise fashion, this book is a necessary part of the equipment of every dispensary. New ideas have been incorporated and scientific knowledge has been added to the art formerly based on skillful training during apprenticeship and from experience gained in pharmacies of international repute.

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**BUSINESS WANTED**

A. Drug Store with Fancy Goods.  
 B. Chemist with Wine & Spirits.  
 C. Chemical, chemical sweet or cosmetics manufacturers.  
 Only sound business and of good repute and showing audited accounts considered.  
 The premises to be rented but with option to purchase at a later date.  
 The business must be located in Nottinghamshire.  
 All details and price to Box C 2167.

**APPOINTMENTS**

**ANCOATS HOSPITAL,  
 MANCHESTER, 4**

Pharmacist

Applications are invited for the above post. Whitley Council Scale and conditions. Applications, stating age and experience, with names of two referees, to the General Superintendent, Dept. C.D. C 9114

**BURY AND ROSENDALE  
 HOSPITAL MANAGEMENT  
 COMMITTEE,**

**BURY GENERAL HOSPITAL**

Senior Pharmacist

Applications are invited for the post of Senior Pharmacist at the above hospital. Salary scale £675 per annum rising by increments to a maximum of £865 per annum. Apply, stating full details of experience and names of two referees to H. Wilkinson, Group Secretary, Bury General Hospital. C 9125

**CENTRAL MIDDLESEX  
 HOSPITAL,  
 PARK ROYAL, N.W.10**

Locum Pharmacist

required for holiday period May and June. Please apply to the Medical Director stating age, qualifications and experience together with the names of two referees. C 9121

**BROOKWOOD HOSPITAL,  
 KNAPHILL, WOKING**

Assistant-in-Dispensing

Applications are invited for the above post. The successful candidate will be required to work under the supervision of the Chief Pharmacist, who is responsible for the preparation and issue of drugs and dressings for about 1,750 patients.

Salary Scale £170 p.a. at age 16 years rising to £375 at age 22 years or over rising to a maximum of £490 p.a. (plus £20 p.a. for an approved qualification).

Professional and Technical Council B of Whitley Council conditions apply to the appointment which is subject to the provision of the National Health Service Superannuation Regulations.

The successful candidate will be required to pass a medical examination.

Accommodation available for female candidate for which a charge of £2 8s. per week will be made.

Applications giving particulars of age, experience and qualifications, together with names of two referees to the Physician Superintendent, C 417

**CENTRAL GROUP HOSPITAL  
 MANAGEMENT COMMITTEE,  
 BETHNAL GREEN HOSPITAL,  
 CAMBRIDGE HEATH ROAD,  
 LONDON, E.2**

Locum Pharmacist

required for varying periods between May 18 and October 3 for duties in the modern pharmacies at three hospitals in the Group. Salary up to 16 guineas per week. Applications to the Chief Pharmacist. C 447

**CENTRAL MIDDLESEX  
 HOSPITAL,  
 PARK ROYAL, N.W.10**

Pharmacist

Applications are invited for the above post, vacant April 28, 1959. Salary in accordance with Whitley Scale. Applications to the Medical Director as soon as possible stating age, qualifications and experience with the names of two referees. C 9120

**CENTRAL GROUP HOSPITAL  
 MANAGEMENT COMMITTEE**

Senior Pharmacist and Pharmacist

for Bethnal Green Hospital. Modern department approved for training students. Salary scale, Senior Pharmacist £675—£865 p.a. Pharmacist £605—£815 p.a., plus higher qualification allowance and London Weighting. Please apply with details of age, training and experience to the Group Secretary, 213 Kingsland Road, London, E.2. C 344

**CONNAUGHT HOSPITAL,  
 WALTHAMSTOW, E.17**

Locum Assistant-in-Dispensing (Apothecaries' Hall Certificate)

required at above hospital, May 4 to 9, 1959. £9 11s. 6d. per week. Apply Secretary, Forest Group H.M.C., Langthorne Road, E.11. C 9149

**CRUMPSALL HOSPITAL,  
 MANCHESTER, 8**

Locum Pharmacist

Applications are invited for the above post for which the salary is £16 16s. per week. Apply, giving age, qualifications and experience together with the names and addresses of two referees, to the Hospital Administrator as soon as possible. C 9138

**CENTRAL MIDDLESEX  
 HOSPITAL,  
 PARK ROYAL, N.W.10**

Assistant-in-Dispensing

Applications are invited for this position. Please reply to the Medical Director as soon as possible stating age, experience and giving names of two referees. C 9119

**DARENTH AND STONE  
 HOSPITAL MANAGEMENT  
 COMMITTEE,**

**DARENTH PARK HOSPITAL  
 FOR MENTAL DEFECTIVES,  
 NEAR DARTFORD, KENT**

(Category II)

Chief Pharmacist

Applications are invited for the post of Chief Pharmacist at this Hospital.

Salary, £755 to £1,030 per annum plus "Dartford" Weighting allowance of £10 to £30 according to age.

Accommodation available at moderate charges for a single female candidate.

Applications, stating age, qualifications, and previous experience, together with the names of two referees, to be forwarded to The Physician Superintendent. C 9112

**DULWICH HOSPITAL,  
 EAST DULWICH GROVE, S.E.22**

Locum Pharmacist

required for period June 15 to 27 at above hospital. Salary £16 16s. a week. Apply to Chief Pharmacist. C 9137

**ESSEX COUNTY HOSPITAL,  
 COLCHESTER**

Assistant-in-Dispensing

required at the above hospital. Salary as Whitley Council Scale rising to £510 per annum. Applications to Group Secretary, Colchester Hospital Management Committee, 14 Pope's Lane, Colchester, Essex. C 9096

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## Appointments—Continued

EASTERN HOSPITAL,  
LONDON, E.9

Locum Pharmacist

14-16 guineas per week, according to experience. Write Secretary, Hackney Hospital, E.9, with full details. C 448

GENERAL HOSPITAL,  
NOTTINGHAM

Locum Pharmacist

required for duties at the General Hospital, Nottingham, and Nottingham Eye Hospital for a period of three months or more. Applications to the Group Secretary, General Hospital, Nottingham. C 9144

HAREFIELD HOSPITAL,  
HAREFIELD, MIDDLESEX  
(610 beds)

Locum Senior Pharmacist

required at the above general and chest hospital. London Weighting payable. Applications together with names of two referees to Medical Director. C 9097

## GUY'S HOSPITAL, S.E.1

Locum Pharmacist

required mid-May to early October for holiday relief. Salary £16 16s. per week. Applications considered for whole or part of period. Write, with full details of qualification and experience to Chief Pharmacist, Guy's Hospital, S.E.1. C 449

HAREFIELD HOSPITAL,  
HAREFIELD, MIDDLESEX  
(610 beds)

Senior Pharmacist

required at the above general and chest hospital. London Weighting payable. Applications together with names of two referees to Medical Director. C 9098

HOSPITAL MANAGEMENT  
COMMITTEE No. 9,

## WAKEFIELD "A" GROUP

Senior Pharmacist

required to take charge of small manufacturing and sterilising department in the Group Pharmacy, Clayton Hospital, Wakefield. Successful candidate will be required to undertake holiday relief duties at one other hospital in the Group. Salary scale £675 to £865 per annum with additional allowance of £25 per annum for possession of a qualification higher than Ph.C. New entrants to the Hospital Service commence at the minimum of the scale. Conditions of service in accordance with Whitley Council Agreements. Application forms obtainable from the Group Secretary, 113 Northgate, Wakefield. C 9139

HOSPITAL OF ST. JOHN &  
ST. ELIZABETH,  
60 GROVE END ROAD,  
N.W.8.

Assistant Apothecary Hall Dispenser (Lady) required in early June preferably with hospital experience, Whitley Scale. Applications to the Secretary with copies of recent testimonials. C 9123

HAREFIELD HOSPITAL,  
HAREFIELD, MIDDLESEX  
(610 beds)

Assistant-in-Dispensing

required, London Weighting payable and additional £20 p.a. if holding approved qualification.

Applications, giving age, qualifications and experience, together with two testimonials, to Medical Director. C 9099

LAMBETH HOSPITAL,  
BROOK DRIVE, S.E.11

Locum Pharmacist

required, Salary by agreement. Telephone Chief Pharmacist, Reliance 3804. C 453

KING EDWARD VII HOSPITAL,  
WINDSOR  
(Category III Hospital)

Pharmacist

required immediately. Whitley salary. Applications giving details of service and names of three referees to Secretary. C 9071

METROPOLITAN HOSPITAL,  
KINGSLAND ROAD,  
LONDON, E.8

Locum Pharmacist

required to work in a modern department. Apply to Hospital Secretary. C 445

LAMBETH HOSPITAL,  
BROOK DRIVE, S.E.11  
(Acute General 501 Beds)

Pharmacist

required. Salary in accordance with Whitley Council Scale, plus London Weighting. Applications stating age, experience, qualifications and names of two referees to the Secretary. C 442

MOUNT VERNON HOSPITAL,  
NORTHWOOD, MIDDLESEX

Senior Pharmacist

urgently required in main dispensary. Applications with names and addresses of two referees to the Group Secretary. C 9124

NORTH STAFFORDSHIRE  
ROYAL INFIRMARY,  
STOKE-ON-TRENT

Pharmacist

required. Salary in accordance with Whitley Scale. Applications to Hospital Secretary as soon as possible. C 9115

NOTTINGHAM No. 2 HOSPITAL  
MANAGEMENT COMMITTEE,  
NOTTINGHAM CITY HOSPITAL  
(811 beds)

Deputy Chief Pharmacist (Category V)

Required at the above Hospital. Applications are invited for the above post, which is now vacant.

The City Hospital is a Group hospital and caters for the pharmaceutical requirements of a number of subsidiary hospitals in the area. Applicants should have a wide experience in hospital pharmacy, and be capable of controlling staff. A knowledge of surgical instruments is desirable. The successful applicant will work under the Group Chief Pharmacist and will be required to assume complete control in his absence.

Further particulars regarding the post can be obtained on application to the Chief Pharmacist. Whitley conditions of salary.

Applications, stating age, qualifications and full particulars of previous experience, together with the names of two referees, should be sent to the Group Secretary, Sherwood Hospital, Nottingham, as soon as possible. C 9060

READING AND DISTRICT  
HOSPITAL MANAGEMENT  
COMMITTEE

Pharmacist

required at the Royal Berkshire Hospital, Reading (Category V). Six pharmacists with full supporting staff. Frequent five-day weeks. Commencing salary, new entrants, up to £730 p.a., based on previous professional experience and National Service after qualification. Applications to Group Pharmacist, Royal Berkshire Hospital. C 443

## ROYAL FREE HOSPITAL

Pharmacist

Applications are invited for the above post at this hospital. Salary in accordance with the Whitley Council Scale.

Applications, with names of two referees, should be addressed to the Chief Pharmacist, Royal Free Hospital, Gray's Inn Road, W.C.1. C 9131

ROYAL INFIRMARY,  
DURHAM ROAD,  
SUNDERLAND  
(300 Beds)

Pharmacist

Applications are invited for the above post in busy acute general hospital with Out-Patients' Department. Good experience available. Whitley Council conditions.

Apply in writing, stating age and qualifications and naming two referees, to the Hospital Secretary. C 9135

ROYAL INFIRMARY,  
DURHAM ROAD,  
SUNDERLAND  
(300 Beds)

Locum Pharmacist

required from May 25 to June 6 and August 4 to August 29, 1959. Salary by arrangement. Apply, in writing, to the Hospital Secretary. C 9136

ST. ANN'S GENERAL HOSPITAL,  
ST. ANN'S ROAD,  
SOUTH TOTTENHAM, N.15

Locum Pharmacist

required immediately. £16 16s. per week. Staff of three in department. Apply to Hospital Secretary. C 9054

ROYAL FREE HOSPITAL GROUP,  
ELIZABETH GARRETT  
ANDERSON HOSPITAL,  
EUSTON ROAD

Senior Pharmacist

Applications are invited for the above post at this hospital. Salary in accordance with Whitley Council Scale. Applications, with names and addresses of two referees, should be addressed to the Group Chief Pharmacist, Royal Free Hospital, Gray's Inn Road, W.C.1. C 9130

ST. THOMAS' HOSPITAL,  
LONDON, S.E.1

Locum Pharmacists

Two required from June 8 for approximately eighteen weeks. 16 gns. per week. Apply Personnel Officer. C 451

SHREWSBURY HOSPITAL  
GROUP,  
ROYAL SALOP INFIRMARY

Locum Pharmacist

required immediately for an indefinite period. Salary £18 18s. per week. Applications to undersigned from whom any further particulars may be obtained.

J. P. MALLETT,  
Group Secretary.  
C 9092ST. MARY'S HOSPITAL,  
CHILDREN'S DEPARTMENT,  
PRINCESS LOUISE KENSINGTON  
HOSPITAL FOR CHILDREN,  
ST. QUINTIN AVENUE, W.10

Pharmacist

required. Whitley Council salary and conditions. Applications to Secretary, from whom further particulars can be obtained. C 9132

ST. PETER'S HOSPITAL,  
CHERTSEY, SURREY

Pharmacist and Assistant-in-Dispensing required. Whitley Council conditions. Hospital in pleasant rural surroundings within easy reach London. Temporary accommodation available for single woman.

Salaries: Pharmacist £605 to £815 according to experience. Assistant-in-Dispensing (age 22 or over) £395 to £510.

Applications stating age and experience giving two referees to Administrative Officer. C 9086

TOOTING BEC HOSPITAL,  
TOOTING BEC ROAD, S.W.17

Locum Pharmacists

required for two weeks from June 8, 1959, also on a long-term engagement from May 1959. Accommodation can be made available in the Male or Female resident homes, at moderate cost, if required. Apply to the Chief Pharmacist. C 452

TOOTING BEC HOSPITAL  
MANAGEMENT COMMITTEE

Pharmacist

required at Tooting Bec Hospital, Tooting Bec Road, London, S.W.17. Permanent post. Whitley Council salary. Apply to Physician Superintendent. C 446

WHITECROFT HOSPITAL,  
NEWPORT, I.W.

Chief Pharmacist (Category I)

required at the above Hospital. The Hospital comprises 380 male and female psychiatric beds, but a new unit of 75 beds is in course of construction.

Salary scale £700—£945 per annum. Conditions of service in accordance with National Health Service regulations. Permanent, pensionable post.

Applications, with names of two referees, to be sent to the Group Secretary, I.W. Group Hospital Management Committee, Clatterford House, Carisbrooke, Newport, I.W., not later than April 13, 1959. C 9095

WILSON HOSPITAL,  
CRANMER ROAD,  
MITCHAM, SURREY  
(66 Beds)

Chief Pharmacist (Category I)

required for duties mainly at this General Hospital but also to attend at Cumberland (100 T.B. beds) and Wandle Valley (152 isolation and geriatric beds) Hospitals.

Whitley Council salary and conditions. London Weighting payable. Apply giving full particulars of experience, together with the names of two referees, to the Group Secretary, St. Helier Hospital, Carshalton, Surrey. C 9134

**Appointments—Continued****WILLESDEN GENERAL HOSPITAL, HARLESDEN ROAD, N.W.10**

**Locum Pharmacist**  
required, whole-time or part-time. Apply to Hospital Secretary. C 9141

**APPOINTMENTS OVERSEAS****CANADA**

Required male or female Pharmacist for dispensary of General Hospital—285 beds, 61 basinettes, 80 chronic unit beds. Commencing salary \$305.00 per month, equivalent in English pounds (approx. £109 per month). Work as Assistant Pharmacist. Application with full details and names of two referees to be sent as soon as possible to: Personnel Manager, St. Thomas-Elgin General Hospital, St. Thomas, Ontario, Canada. C 9084

**SITUATIONS VACANT  
RETAIL HOME**

**ASSISTANT WANTED**, Douglas, Isle of Man. Young, energetic assistant, unqualified, lady or gentleman, season May to September. Chiefly counter duties, light dispensing, some knowledge of photography. Write experience, when free, salary required to Frank Purcell, 97 Strand Street, Douglas, Isle of Man, C 2158. **LIVERPOOL**. Lady or gentleman pharmacist required to manage good-class family business and busy dispensing department. Congenial position and experienced staff support. Excellent salary. No rota or Sunday duty. Box C 2156.

**OLDHAM CO-OPERATIVE CHEMISTS, LTD.**, invite applications for position of pharmacy branch manager, either sex. Modern accommodation available if necessary. Superannuation, Salary and other emoluments at least £960. Applications, stating age, experience, etc., to Oldham Co-operative Chemists, Ltd., King Street, Oldham. C 2145. **YOUNG**, qualified pharmacist, male or female, required to manage branch business. Opportunity for development. Two assistants on staff. Apply W. H. Hampton, Ltd., 47 Northgate Street, Gloucester. C 2162

**LOCUMS WANTED**

**LIVERPOOL**. Locum pharmacist (lady or gentleman) required for short or long period of six months commencing May. Good supporting staff and normal hours. Please state dates available and terms. Box C 2157.

**LOCUM** required for the period June 26 to September 26, or any part, by small private company. Good salary and expenses offered. Davey & Taylor, Ltd., 102 Petersfield Avenue, Harold Hill, Romford, Essex. (Phone: Ingbourne 43811.) C 2160

**WHOLESALE****ARMOUR PHARMACEUTICAL COMPANY**

wish to appoint MEDICAL REPRESENTATIVES to various territories in the London area, including HARLEY STREET and the TEACHING HOSPITALS.

Preference will be given to applicants under 40 years with a sound background of medical representation or pharmacy. These are senior appointments to which great importance is attached and will be remunerated accordingly, and on a progressive basis. Adequate expenses and a company car are provided and superannuation and group life insurance schemes are operative.

Fully detailed applications to:

**Sales Manager,  
Hampden Park,  
Eastbourne**

C 9147

**EXPERIENCED MEDICAL REPRESENTATIVE** required by well-known manufacturers (London) to supervise medical representative force and control publicity department. Full particulars to Box C 2168.

**AMES COMPANY (LONDON) LTD.,  
Nuffield House, Piccadilly, London, W.1****MEDICAL REPRESENTATIVES**

There is unusual interest in promoting our unique diagnostic reagents so why not apply for one of the following areas:—

- (1) **WEST SCOTLAND** (based on Glasgow).
- (2) **EAST MIDLANDS.**
- (3) **SOUTH WALES.**
- (4) **LONDON TEACHING HOSPITALS.**

Good knowledge of pharmacy or biochemistry desirable but essential qualifications are initiative, genuine enthusiasm and lively personality. Write brief letter to Sales Manager saying why you would like to sell Ames reagents, together with typed summary of education and experience and recent photograph. Salary, expenses, car, contributory pension scheme, etc. Advancement in accordance with success. C 9116

**BURROUGHS WELLCOME & CO.**

Woman Pharmacist required as Head of Copy and Formula Section of the Packaging Development and Design Department, Wellcome Chemical Works. The successful candidate will be responsible for the administration of this section, which deals with copy for printed packaging materials and maintains and issues working formula for the production departments. She should be well versed in forensic pharmacy. Contributory pension scheme. Good conditions of employment. Salary will be in accordance with qualifications and experience. Applications should be made to the Personnel Manager, Wellcome Chemical Works, Dartford, Kent. C 9148

**CHEMIST** required to take charge of and control Analytical Laboratories dealing with products in the pharmaceutical field. Qualified man essential, preferably with experience of analytical work. Salary according to qualifications and experience. Write giving fullest details to Managing Director, Potter & Clarke, Ltd., River Road, Barking, Essex. C 9142

**BOEHRINGER (INGELHEIM)****PRODUCTS DIVISION OF****PFIZER LIMITED**

*A few vacancies still exist in the Southern half of England for*

**MEDICAL REPRESENTATIVES**

If you are a pharmacist or have a pharmaceutical background, are under 35 years of age, in good health, have a pleasant personality, high integrity and have the ability to sell, you are invited to apply for one of these appointments.

Applications giving full details of age, education, experience to date and territory preference, should be sent, quoting reference M.N.G., to the:

**Recruitment and Training Supervisor,****PFIZER LIMITED,**

137-139 Sandgate Road,

Folkestone

C 9093

**JUNIOR TECHNICAL REPRESENTATIVE** required, preferably with experience and contacts in the Foodstuffs and Pharmaceutical Industries. Applicants should be in the age group 24-30, should have a chemistry degree, or diploma, and have completed National Service. Salary commensurate with qualifications will be paid. A contributory pension scheme is in operation. Full details of age, education, qualifications and experience should be sent to the Personnel Manager, Nipa Laboratories, Ltd., Roman Wall House, 1 Crutched Friars, London, E.C.3. C 2159

**LEVMEDIC LIMITED  
MEDICAL REPRESENTATIVE**

This British subsidiary of Farbenfabriken Bayer A.G., Leverkusen, Germany, require the services of an experienced Medical Representative in each of the following territories:—

- (a) **West Midlands.**
- (b) **South Wales.**

Applications are invited from persons under 45 years who possess a pharmaceutical qualification or similar background and who are keen to establish a career in a growing organisation. Experience of the Territory is desirable and a high standard of personal initiative and integrity is essential. A good starting salary with a generous expense allowance is offered and a company car is provided. A Staff Pension Fund is in operation. Applications should be addressed, in confidence, to:—

**The General Manager,  
Levmedic Limited,  
37-41 Bedford Row,  
London, W.C.1.**

C 2166

**MEDICAL REPRESENTATIVES**

Further expansion has created several vacancies for medical representatives in London and Home Counties, also resident representatives in Liverpool and Manchester areas.

Applicants should be men with good pharmaceutical or medical background. Previous representational experience an advantage, but background is equally important. A company car with expenses will be additional to a suitable salary. Applications in strict confidence should state all relevant details and territory preferred, addressed to Box C 9126.

**PERFUMERY COMPOUNDER.** Small progressive company requires young man for training as Perfumery Compounder. Interesting work. Excellent prospects. Please apply to The Manager, De Trevis (London), Ltd., 158/164 Copenhagen Street, London, N.1. C 2174

**MSL** have been retained to advise on the appointment of a

**SALES AND DEVELOPMENT MANAGER**

to introduce into this country the products of a leading American ethical pharmaceutical company. The company, which has a turnover of \$25 million, plans considerable development both in the United Kingdom and in Europe where a factory is already in operation. The Sales and Development Manager will be entirely responsible for building up the business in the United Kingdom. Initial salary about £2,500 plus a car.

Candidates must have a degree, preferably in chemistry, and some knowledge of the ethical pharmaceutical industry is desirable. A good sales record is essential and experience should have extended beyond the sales field. Age under 40.

No information will be disclosed to our clients until candidates know their identity and have given permission after personal discussion. Please send brief details in confidence, quoting reference AK.1581, to P. J. H. Fryer.

**MANAGEMENT SELECTION LIMITED**

17, Stratton Street, London, W.1.

C 9118

**PROGRESSIVE** wholesale chemists require representative, London area. Write full details, Box C 2175.

WILLIAM R. WARNER &amp; CO., LTD.

**MEDICAL REPRESENTATIVES**

As a result of rapid growth and promotions within the organisation, William R. Warner & Co. Ltd., have a number of interesting vacancies for Medical Representatives.

Applications are invited from men aged 25-35 who wish either to make or consolidate a career for themselves in the Pharmaceutical Industry. For some appointments, pharmaceutical or equivalent qualification is an advantage, but applicants with a good technical background will be considered.

Those candidates who are short-listed will be interviewed with a view to joining a training course which will commence in either June or July.

Initial salary will be in keeping with experience and qualifications and the positions are permanent and progressive. A Company car is provided and all expenses paid. A non-contributory pension scheme is in operation.

Applications, which will be treated in strict confidence, should give all details of age, education, qualifications and experience and should be sent to Personnel Officer, William R. Warner & Co. Ltd., Eastleigh, Hants.

C 9122

HAVE YOUR PRODUCT MANUFACTURED IN THE

**CENTRAL AFRICAN FEDERATION****CENTRAL AFRICAN PHARMACEUTICALS (PVT.) LTD.****CHEMICAL & MANUFACTURING DIVISION**

can now accept contracts for the manufacture of:

**PHARMACEUTICALS • TOILET PREPARATIONS****HOUSEHOLD COMMODITIES and ALLIED PRODUCTS**

in their Salisbury factory.

*Local Production will put your product in a strong position in  
this rapidly expanding market.*

Market Surveys and Efficient Distribution can also be effected by the Company's various marketing divisions, if required.

DIRECTOR AVAILABLE, LONDON, FOR PERSONAL INTERVIEWS 14th MAY ONWARDS.  
Write Box 2279, Salisbury, Southern Rhodesia, or London address c/o Goode, Durrant & Murray Ltd., Durrant House, Chiswell Street, London, E.C.I. Phone: MONarch 4090

C 9035

## Situations Vacant—Continued

**THE BRITISH DRUG HOUSES, LTD.**  
require a young MALE PHARMACIST as an assistant in Galenical Laboratory. The post offers a good opportunity for a person wishing to pursue a career in the pharmaceutical industry.

There is a superannuation fund (contributory) and the Company operates life assurance and profit-sharing schemes. Write stating age, qualifications, experience and salary required to Personnel Manager (Ref. 7035), The British Drug Houses, Ltd., Graham Street, City Road, London, N.1

C 9133

**THE BRITISH DRUG HOUSES, LTD.,**  
require a  
**MEDICAL REPRESENTATIVE**  
for the  
following territory:—

Derbyshire and the West Riding of Yorkshire — south of a line from Huddersfield to Selby.

Candidates should be pharmacists and be under 35 years of age. Remuneration by salary and expenses. A Company car is provided. There is a superannuation fund (contributory) and the Company operate life assurance and profit sharing schemes. Apply giving details of age, qualifications and experience to:—

Personnel Manager, Ref. HAC/JLH,  
The British Drug Houses, Ltd.,  
Graham Street, London, N.1.

C 9143

**VETERINARY SALES EXECUTIVE**

This post with a leading Company involves being largely responsible for sales through representatives of chemotherapeutics and biologicals to the Veterinary Profession. Experience in administration and particularly with biological sales would be valuable. A pharmaceutical qualification would be helpful but is not essential. Good initial salary, varying with successful applicant's potential; pension scheme, etc.

This vacancy has been made known to members of the Company. Applications should include brief personal history and recent photograph. Box C 9105.

**WHOLESALE (OVERSEAS)**

**PHARMACIST.** A vacancy exists for a pharmacist in a large trading organisation in Commonwealth West Africa which deals mainly in wholesale supply of ethical specialities, galenicals and proprietaries to hospitals and practitioners. Applicants should have had management experience including a knowledge of stocktaking, stock control, stock accounts and customer accounts. Knowledge of surgical instruments and equipment would be a distinct advantage. Applicants should not be aged more than 40 years. Starting salary will be not less than £1,200 per annum. Free furnished and fully equipped accommodation and free medical attention are provided. In addition there are free passages, family allowances, a pension fund and good home leave. Apply giving full details of qualifications and experience to Box C 9140.

**SITUATIONS WANTED**  
**RETAIL HOME**

**EXPERIENCED** Apothecaries' Hall lady requires dispensing and/or clerical appointment in hospital. Southern Counties, Box C 2170.

**LADY ASSISTANT** (Irish), unqualified, good personality, highest references, fourteen years' general, and high-class cosmetic experience, desires summer locum. Box C 2171.

**AGENCIES WANTED**

FIFTEEN years established agent seeks additional agency for top grade advertised products only. Over 500 live chemist accounts open, and in regular contact. Apply Box C 2176.

**BUSINESS OPPORTUNITIES****POLLEN AND ROYAL JELLY**

Big producer, corresponding in French and Spanish, looking for importer and distributor on a semi-wholesale and retail basis in all countries of the world.

JEAN HUSSON,  
Gézoncourt par Dieulouard, M-et-M.,  
France. C 2172

**PHARMACEUTICAL FIRM** with spare tabletting facilities would undertake tabletting or other pharmaceutical processes or packing work, with or without customers' own materials. Write Box C 9129.

**WANTED**

**BUYER** specialises in disposing of job lots of any lines appertaining to pharmacy. Any quantity considered. Prompt cash settlement. Willing to discuss adaptation of any line which is not quite suitable in its present state. Please send samples and full details to N. Morris, 218 Walworth Road, S.E.17. Tel. No.: ROD 7261. C 395

**WANTED**

SURPLUS CAMERAS, ENLARGERS, CINE CAMERAS & PROJECTORS, PHOTOGRAPHIC EQUIPMENT OF EVERY DESCRIPTION, SURPLUS AND OUTDATED FILM & PAPER, LARGE OR SMALL QUANTITIES. Phone, write or call:—

**SPEARS**

(Dept. D.), 14 Watling Street, Shudehill, Manchester.

Phone: Blackfriars 1916.

Bankers: Midland Bank, Ltd.

C 438

**WE WILL PURCHASE** for cash a complete stock, a redundant line, including finished or partly finished goods, packing raw materials, etc. No quantity too large. Our representative will call anywhere. Write or telephone:— Lawrence Edwards & Co., Ltd., 6/7 Wellington Close, Ledbury Road, London, W.11. Tel.: Bayswater 4020 and 7692. C 140

**MISCELLANEOUS SALES**

A **RAWSONS** labelling machine, and a Harrisson bottle-filling machine, labels and fills any sized bottles. Condition excellent. Write or phone: Paul Daniels, Ltd., 13 Terrace Road, London, E.9. Phone: Amherst 8005. C 2169

**GLANDULAR POWDERS**, Orchitic, Thymus, Suprarenal, Prostate, Ovarian, Pituitary, Whole Gland, large or small quantities available at keenest prices. Box C 9089.

**1959 First Class! .....**  
**STEEL SHELVING**

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**ONLY THE BEST**  
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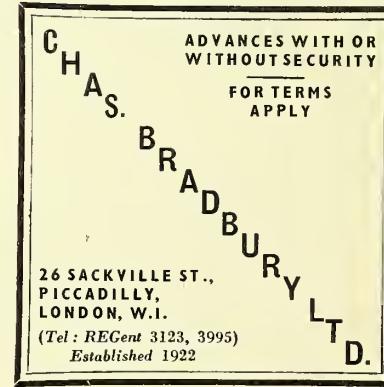
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102a Hindes Road, HARROW, Middlesex  
Shelf it for SHOP DISPLAY, Offices,  
Stockrooms, Laboratories, Modern Units.  
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C 9171

**SALES BY AUCTION**

**B. NORMAN & SON**, 2/5 Little Britain (close to G.P.O.), London, E.C.1, will sell by Auction, Wednesday, April 22, at 1.30 p.m., excellent light oak and other SHOP EQUIPMENT including Drug Runs, Wall Showcases, Plate-glass Counters, Centre Cases, Mirrors, Cash Registers, Display Stands, Fluorescent Electric Fixtures, Linoleum, Carpets, Office Furniture, Hobbs' Safes, Typewriters, Steel Filing Cabinets by Sankey, Sheldon, etc. View Day Prior. Catalogues on application. Tel.: MONArch 8501/2. C 9128

**MISCELLANEOUS**

**JODEZ (MANCHESTER), LTD.**, 8/10 Shudehill, Manchester, offer again the newest Spring-fashion jewellery from the Continent, also sales lines, Ear-rings, Necklets, etc., from 6d upwards, tax included. Sample parcels from £5 upwards. C 9145

**SHOW & SELL**  
with Uni-shelf equipment.

Attractive sets of Display shelves, 3 ft. x 3 ft. Section from £3 18s. Adjustable brackets. Choice of shelf surfaces.

Send for details to:—

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All fittings for Chemists' Shops.  
C 2173

**IMMEDIATE ADVANCES**  
**£50 to £20,000**  
**WITHOUT SECURITY**

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Phone: Regent 5983 & 2914  
C 353

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C 274

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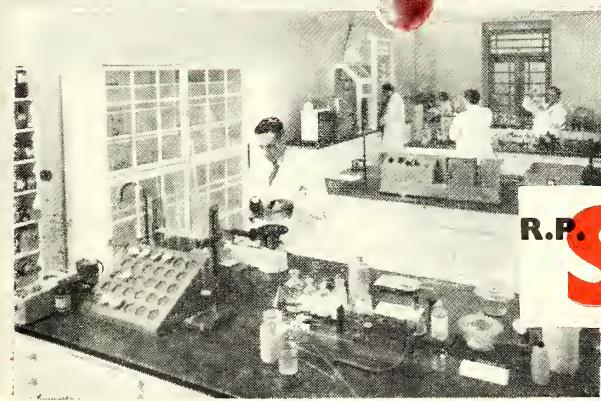
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